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ARTICLE I.

THE PREVALENCE OF PNEUMONIA IN CHICAGO IN 1882; ITS
CHIEF CAUSES AND CHARACTERISTICS. By N. S. DAVIS,
M.D., etc. (Read to the Chicago Medical Society, March 19,
1883.)

That acute pneumonia, pneumonitis, pneumonic fever, lung fever, and winter fever, as it is variously called by different parties, is one of the most common, as well as most fatal, forms of disease the physician has to encounter, is shown by the mortuary statistics of all civilized countries. A more definite and correct idea of the prevalence of pneumonitis, or acute inflammation of the parenchyma of the lungs, and the mortality arising therefrom, is conveyed by the following statistics, taken from the official records of mortality in cities representing the different parts of our country, for the year 1882: The whole number of deaths from pneumonia reported to the health office in this city

during the year just named, is 782; from broncho-pneumonia, 42, and from pleuro-pneumonia, 20.

As bronchitis and pleurisy are much less dangerous to life than pneumonia, it is proper to attribute the deaths reported under the complications named to the latter disease. If so, the aggregate of deaths from pneumonia in this city during the year 1882, was 844; or one in every 597 of the population, as given in the census of 1880. In the same year, the whole number of deaths from pneumonia in Boston was 681, or one in every 532 of the population, as given by the census of 1880. The number of deaths from pneumonia in San Francisco for the year ending June 30, 1882, was 527; or one in every 441 of the population.

The number of deaths reported from pneumonia for the year 1882 in New Orleans, was only 203; or one to every 1,088 of the population.

The four cities I have named represent the northern Atlantic coast, the northern part of the great interior valley of the continent, the southern part of the same valley, and the Pacific coast.

In all of them, the ratio of mortality is sufficient to indicate that the disease is one of the most important with which the physician has to deal. In examining the mortuary tables of previous years, I find the ratio of deaths from the disease in question in Boston and New Orleans for 1882 to be not above the ratio for the two preceding years. In Chicago it appears moderately above the average, as shown by the fact that in 1880 the number returned was 605; in 1881 it was 707, and in 1882 it was 844; the latter being an increase greater than could be explained by any increase of population. In San Francisco, however, the number returned for 1882 is so much in excess of previous years, as to indicate the operation of some unusual cause or causes. For instance, the number of deaths from pneumonia for the five preceding years were: for the year ending June 30, 1877, 306; 1878, 314; 1879, 334; 1880, 368; and 1881, only 296, while, as previously stated, the number for 1882 was 527. If we take the average annual mortality for the five years preceding 1882, it would be 324, or one in every 723 of the population, instead of one for every 441, as in 1882. Again, if, instead of taking the unusually high figures for 1882 in Chicago,

we take the average for the three years 1880-1-2, we shall have an annual mortality of 718, or one in every 702 of the population, instead of one for every 597, as given for 1882 alone.

With these corrections, the relative rates of mortality from pneumonia in the four cities named would stand thus: For Boston, one death in every 532 of the population; Chicago, one death in every 702 of the population; San Francisco, one death in every 723 of the population; New Orleans, one death in every 1,088 of the population.

Assuming these figures to be substantially correct, and that the cities chosen fairly represent the northeastern, northern interior, western and southern divisions of the United States, they show, first, that pneumonia is most prevalent and fatal in those sections of country in which the meteorological conditions are most changeable, with a predominance of cold, moisture, and high winds, with a wide range of temperature between the warmest days of summer and the coldest of winter; thereby following the same law in relation to climatic influences as bronchitis, and inflammations of the respiratory passages generally; second, that some of the statements in our standard works on practical medicine need revision and material modification. For example, Dr. A. B. Palmer, in the most recent work on practical medicine issued from the press, says: "Its prevalence is extensive over the globe, and it is found *nearly alike in all latitudes*. Its geographical distribution is different from that of catarrh or bronchitis." (See *Science and Practice of Medicine*, Vol. II, p. 204.) Dr. Bartholow says: It is a very common disease; it occurs in all degrees of latitude, under every variety of climate, and at all ages." (See *Practice of Medicine*, p. 325.) Dr. Flint, in his well-known work on the *Practice of Medicine*, says: "In this country, the disease occurs in the Middle and Southern, much oftener than in the Northern States." (See *Practice of Medicine*, fifth edition, 1881, p. 168.) Some of the expressions of Dr. Drake, in his work on the *Topography and Diseases of the Interior Valley of the Continent*, are of the same import as that just quoted from Dr. Flint. And yet the statistics I have quoted from the most reliable records, show not only a wide difference in the ratio of prevalence in different latitudes, but the necessity for

directly reversing the statements of Drs. Flint and Drake; the ratio of deaths from the disease being double in Boston, and one-third greater in Chicago, than in New Orleans, Mobile, Augusta, Jacksonville and Charleston; the two first representing the Northern and Northeastern States, and the five last named the Southern States. The ratio in San Francisco, while showing a degree of prevalence intermediate between the northern and southern climatic belts east of the Rocky mountains, is still more strikingly at variance with statements found in works of high authority.

Thus, Dr. Wilson Fox, in the chapter on pneumonia in Reynolds' System of Medicine, when discussing the influence of climate, says: "Oregon and California appear to enjoy a singular immunity from the disease." (See Reynolds' System of Medicine, Am. edition, vol. II, page 154.) That the meteorological conditions which constitute the elements of climate, exert much influence over the prevalence of pneumonia, is strongly corroborated by the fact that it is much more prevalent in some seasons of the year than in others. As a rule two thirds of all the cases and deaths occur during the months of December, January, February, March and April. Of the same import, also, is the fact that nearly twice as many males die from the disease as females, caused, doubtless, by their much greater exposure to the sudden and severe meteorological changes during their outdoor occupations. It was not my intention, however, to call your attention so much this evening to the general causes influencing the prevalence of pneumonia, as to some of the more local, and perhaps personal conditions and customs that may exert an important influence both on the number of attacks and on the special characteristics of the disease in particular seasons and localities.

It would be an interesting and profitable item of study to compare closely the different degrees of prevalence of the disease in different years, and in different parts of each year, with the coincident differences in the meteorological conditions, and the materials for such comparisons are now accumulating in the hands of a committee of the American Medical Association, but are not yet ready for full examination.

For instance, there must be some definite reason why pneumo-

nia destroyed 844 lives in this city in 1882, and only 605 in 1880; and equally so, why in 1882 the highest monthly mortality (122) was in January, and the highest in 1880 (i. e., 112), was in April, while in January of that year the number was only 48. The actual causes of such striking variations in the monthly and annual prevalence of an important disease in the same population and locality can and should be ascertained by patient and co-operative observations and records on the part of the members of this society. But in addition to the meteorological or climatic and seasonal influences, there are manifestly others of much etiological importance. For instance, in San Francisco, during the unusual prevalence of pneumonia in 1882, the ratio of deaths from that disease in the 212,520 Caucasian, or white inhabitants, was 1 in 498; in the 22,000 Mongolians, it was 1 in 232, or more than double that among the whites. So in New Orleans during the same year the ratio of deaths was nearly three times as great among the colored as in the white population. In this city and in Boston I have not the official figures for the several races comprising the populations, but I have examined the details sufficiently to know that I am quite within the limits of fact when I say that the mortality from the disease under consideration is thirty-three per cent. greater among the population of foreign birth than among the American part. Closer examination however, shows that these striking differences are not so much due to the inherent susceptibilities of different races, as to modes of living, habits of life and occupations. The aggregation of the Mongolians of San Francisco into the unsanitary Chinese quarters, and the poorly protected, often crowded and unsanitary dwellings of the colored population, not only in New Orleans, but on many plantations and other rural districts, often made worse by dissipation and exposure, afford abundant reasons why they should suffer severely from any acute disease of an endemic character.

It is also a fact that the great mass of foreign population in this and other northern cities belong to the laboring classes, and live in small houses with very small, poorly ventilated sleeping rooms, to which is often added location on damp soil, and from the confined, damp and warm air of these rooms the men go out in the morning to work and abrupt exposure to cold, with vaso-

motors depressed and blood imperfectly depurated. It requires but a moderate degree of observation to see why far the larger number of the deaths from pneumonia should occur among persons thus situated whether foreign born or native. Another agent which also exerts much influence in favoring the development of pneumonia is the habitual use of alcoholic drinks. Whether the evil effects are owing directly to the presence of the alcohol in the system diminishing nerve sensibility and retarding molecular changes, or indirectly to the greater exposures which drinkers generally encounter, I will not stop now to inquire. The fact that those who indulge in such habits are more liable to attacks, and more liable to die when attacked, is easily verified by observation, and is acknowledged by our best writers.

In regard to the special characteristics of the cases of pneumonia which have occurred in this city the past year, I am not, perhaps, as well able to judge as many of you, my opportunities for observation having been limited mostly to hospital and consultation cases. Such observations as I have made have led me to think the great majority of cases were accompanied by the dullness of expression, softness of pulse, mental wandering, dark color of the bloody sputa and occasional looseness of the bowels, that would require classing them as typhoid in their grade and tendencies.

In some of the cases coming under my observation, the cerebral symptoms were unusually prominent and in two or three cases they were manifest in an unusual manner. The first symptoms were very severe pain in head, most severe in the occipital region, with great restlessness and anxiety, hurried breathing and only little elevation of temperature. After about twenty-four hours the pain drifted to the lower part of one side of the chest, extremely acute, causing the respiration to be short or stifled, very frequent, and pulse sharp and quick; but the closest examination detected neither the friction of the first stage of pleurisy, nor the crepitant râle of pneumonia; nor the dullness on percussion of the second stage of either. After the pain in the side and other symptoms mentioned, with temporary feeling of sinking, had continued for nearly forty-eight hours, the pains ceased, the mind became calm, but the pulse and respi-

ration continued short and frequent, like one weary from physical exertion, and giving exaggerated or puerile respiratory murmur, but no râles or dullness over any part of the chest, and no expectoration. During the next twenty-four hours, however, the patient became gradually more dull or drowsy, the respirations shorter, with first crepitant râle over the right side of the chest, which gave place in less than eight hours to submucous râle, some bloody expectoration and marked dullness on percussion, with a weak and frequent pulse. In less than twenty-four hours after the first indications of pneumonic exudation, the whole of the right, and the lower part of the left, lung were completely filled with the exudative material, and the patient died.

Another of this class was marked by a decidedly hysterical order of nervous symptoms; and after suffering excruciating pain, vacillating from the lower half of the left side of the chest to the head, often, for several days without developing any physical signs of either pulmonary or cardiac disease, there supervened well marked symptoms of pneumonia, limited to the lower part of the left lung, quickly followed by endo-carditis. These symptoms had progressed only about twenty-four hours when the patient was seized suddenly with some convulsive movements, and shrieking, as if from intense pain. In this emergency a physician was called in, who administered morphine, both by the mouth and hypodermically. The patient soon fell into a sleep, from which she could be partially aroused six or eight hours later, but lapsed into stupor again, and died about twelve hours after the convulsion. In several other cases the cerebral symptoms came early, and presented the delirium analogous to that often present in the more active grade of typhoid fever. During its continuance, the respiratory movements become less and less efficient; the moist râles more prominent; the pulse soft, weak and frequent; the extremities cool, and skin generally relaxed and wet with perspiration.

In all these cases, the urine was scanty, and deficient in the chlorides, and was sometimes voided with difficulty. One of these patients died at the end of the first week after the attack, another on the eleventh day, and the rest recovered, in times varying from nine to twenty-one days. All the fatal cases mani-

festing unusual cerebral symptoms occurred in private families, in which no post-mortem examinations could be obtained. Those coming under my own observation were in the south half of the West Division of the city; and it may be proper to remark that cases of cerebro-spinal meningitis were occurring with unusual frequency coincidently in the same part of the city.

With the exception of the class of cases I have just been describing, the general character of the symptoms in the pneumonic attacks of the past year in this city has been such as to indicate a decided typhoid or asthenic grade of morbid action. In only a few instances has the fever in the early stage exhibited such a degree of periodicity as to indicate the presence of a distinct malarious influence.

In regard to the treatment of pneumonia, I will detain you for only a few words concerning the more important items or questions that the subject suggests. The three principal sources of danger to life from acute pneumonic inflammation are, first, the extent and intensity of the vascular engorgement in the first stage of the inflammatory process.

When the disease attacks the greater part of both lungs simultaneously, constituting full double pneumonia, as it occasionally does, both in children and adults, the compression of the alveoli or air cells from the over-distension of the network of capillaries surrounding them, may diminish the amount of air received to such a degree as to prevent the oxygenation and decarbonization of the blood. The respirations become hurried, panting and unsteady; the pulse feeble and frequent, while the heart at first beats excitedly, but soon gives indications of weakness and unsteadiness; the mind, at first excited and anxious, soon becomes dull, and in some cases incoherent, while the whole external surface, including especially the face, neck, and trunk of the body, appears first congested, then mottled with purplish spots, and finally cyanosed, with cold extremities, entire collapse and death. Such cases, in which the fatal result is from apnoea, or the direct exclusion of air, are of rare occurrence, not more than five or six having come under my own observation in a period of forty-five years.

The second, and much more frequent source of danger to the

life of the patient, is the amount of the exudation into the lung tissue and alveoli during the second stage in the progress of the disease. The exudation exerts a two-fold influence, namely, by depleting or actually diminishing the amount of blood in circulation, and by diminishing the oxygenation and decarbonization of the blood, from the exclusion of air from a large proportion of the alveoli of the inflamed part of the lung. With from one to three pounds of the elements of blood taken out of the circulation in the form of exudative material, and solidified in the alveoli and interstitial spaces of the lung structure, thereby excluding an equal bulk of air, you will readily see how a strong sedative or depressing effect is produced on the functions of both respiration and circulation, and why the cardiac force should be impaired, even to a dangerous degree, in the early part of the second stage.

The third source of danger is from the extent of purulent degeneration of the exudate, causing gray hepatization or diffuse suppuration instead of resolution, and progressive exhaustion of flesh and strength until death results from asthenia. It is thus evident that the cardiac weakness in the different forms, or rather stages, of pneumonia, which nearly all writers of the present time mention as the chief source of danger, and on which they found their use of particular remedies, is only a symptom or effect, resulting, in the first and second stages, from the sedative effect of imperfectly arterialized blood, and in the third stage chiefly from the extent of the suppurative process in the inflamed structures.

If these views concerning the actual pathological conditions that may endanger the life of the patient are correct, the objects most necessary to accomplish by treatment become obvious and well defined, namely, first, to limit the vascular fullness or accumulation of blood in the vessels of the inflamed part, and lessen the morbid excitability of the texture in the first stage; by which we shall prevent a dangerous degree of direct compression of the air cells in double pneumonia, and most efficiently limit the amount of exudation which is to constitute the chief source of danger in the second stage.

There are three practicable methods by which the quantity of

blood in a part may be diminished. First, by abstracting a part of the blood, as by venesection, local bleeding, and other evacuants; second, by diminishing the force and frequency of the heart's action by cardiac sedatives; third, by increasing the tone or contraction of the smaller vessels of the part, through the agency of the vaso-motor nerves.

That a prompt, free bleeding in the first stages of active pneumonia is capable of lessening the fullness of the pulmonary vessels and relieving the pressure on the alveoli in a marked degree, I have demonstrated so many times as to have no possible doubt of its reality. It is equally true that such relief will, in a large proportion of the cases, prove temporary, if relied upon alone; but, if followed by the prompt and judicious use of such cardiac sedatives, coupled with mild anodynes, as will lessen the force and frequency of the cardiac action in the more sthenic cases, and by efficient doses of such remedies as promote an increase of the tone or contraction of the pulmonary vessels in the malarial and asthenic cases, the advantage gained by the bleeding will be perpetuated, thereby rendering the amount of exudation and red hepatization to constitute the second stage much less, and ensuring an earlier and more perfect recovery. It is true that in all the milder more limited cases of unilateral pneumonia the venesection may be dispensed with, even in the active or sthenic type of the disease. In such the cardiac sedatives during the first stage, accompanied and followed by a combination of anodyne and expectorant remedies, with rest and proper nursing is all the treatment required. But it is equally true that in the more severe cases of this type, the omission of the bleeding at the proper moment, greatly increases the danger of unfavorable progress, and has in times past been the occasion of many fatal results. When the pneumonic inflammation occurs in persons whose blood and tissues have been under the habitual influence of malaria, the effect of quinine in from five to ten grain doses, in restoring the tone of the pulmonary vessels and repressing the general febrile symptoms in the first stage, is in most cases prompt and efficient. I have seen some cases of this variety completely arrested within the first forty-eight hours after the initial chill, by taking five grains of sulphate of quinine with one of calomel

and one of pulverized opium every three hours the first day and every six hours the second. After the latter a mild laxative to move the bowels and three grains of quinine three times a day for four days was all the treatment required. In all ordinary cases occurring under malarious influences, the prompt and judicious use of quinine may take the place of blood-letting in the first stage of disease. But when the attack is severe, involving a large portion of one lung or portions of both lungs, and the patient comes under observation within twelve hours after the chill, a bleeding of from twelve to twenty ounces will render the action of efficient doses of quinine and opium more prompt and certainly beneficial than it would be without such loss of blood. When pneumonia occurs in the midst of sanitary conditions, favoring the prevalence of typhoid and typhus fevers, our reliance for diminishing the vascular engorgement of the first stage, must be mainly on the use of quinine, ergotine, and sponging the surface with cool water, or covering the whole chest with emollient poultices.

I have called attention thus fully to the treatment of the first stage of pneumonia, and the different agents that may be employed for accomplishing the same general object (relief of the vascular engorgement in the inflamed structure), and their adaptation to the treatment of cases occurring under different etiological conditions, because it is only by acting in this first stage promptly and judiciously, that we can materially limit the amount of exudation which is to follow and determine the danger or safety of the subsequent stages of each case. I had intended to allude to two or three other items of importance in the treatment of the second and third stages of the disease, but I have already occupied too much of your time, and will defer them until another opportunity offers.

ARTICLE II.

THE HYPODERMIC TREATMENT OF SYPHILIS. By A. LAGORIO, M.D., Chicago, Illinois. (Read before the Chicago Pathological Society.)

Syphilis is a virulent disease which never develops spontaneously, but is transmitted by a mediate or immediate contagion, by

inoculation or by heredity. As all other virus, so the syphilitic cannot be known except by its effects, it not presenting any chemical nor special histological characters. Syphilis, once contracted, impresses on the organism a special and diathetic state, which is shown by various manifestations, which may be protracted to distant epochs from the moment of its infection. From the periphery of the body the disease proceeds toward the central parts; at first limited to the skin and mucous membranes; afterward invading the cellular tissues, the muscles, the bones and the viscera.

Although the venereal contact is the most frequent origin of syphilis, it is frequently acquired by many other means, as by kissing, by nursing, by smoking, etc., etc. It is only sufficient that the virulent products of a syphilitic individual come in contact with a sound individual who has the least solution of continuity of the skin or of the mucous membrane.

Guaiacum was once the great remedy for syphilis. Then the *cura famis*, or the *penitential Lent*, was established, consisting in the use of guaiacum and the privation of food, but the victims of this treatment soon made the method fall into discredit. Sudoriferous woods were then tried, as sarsaparilla, sassafras, etc., etc., and the preparations of gold and the mineral acids gained great favor. Berengarius da Carpi, having noticed a certain analogy between lepra and the cutaneous forms of syphilis, thought to cure them with mercury, and the results immensely surpassed his expectations. In lepra the remedy acted only as palliative, but it perfectly cured the syphilitic forms. He always obtained the most brilliant results; he became a great celebrity, and all ran to the Ligorian shore to regain the lost health. He became immensely rich, and to such an extent, that it was believed he had truly found the Philosopher's Stone, and the method so much sought by the alchemist, to transform any metal into gold. After this time every one applied himself seriously to study; experiments were made, one after the other, and the metal mercury passed into the scientific period. It seems that in the beginning of the seventeenth century, Paracelsus began to experiment on the action of mercury in syphilis, but the enormous doses which he used in a brief space of time, and his method of anointing the

body in heated rooms, and the great number of mercurial poisonings, aroused against him the most learned physicians, who showed the bad effects of the method, and the remedy was abandoned. It was not until a century and a half later that the mercurial preparations began to be used with more care, in moderate doses, and with due intervals between the applications. Then it was known that salivation was not necessary for the efficacy of the cure, and that this depended upon the curative power of the remedy, and not from the secretion and excretion produced by the remedy. Along with this treatment, the use of wine, of meat, of free exercise in open air, was permitted to the patients, and many other things which before were thought to be injurious to the good end of the therapeutical treatment.

Later, the distinction between venereal and syphilitic affections, which before were treated promiscuously, served greatly to confirm the utility of mercury; but after so many experiments, after so many millions of patients who served as proof, the bad feeling that many have against this remedy has not yet ceased, and yet a remedy has not been discovered more capable of antagonizing the syphilitic contagion when once it has penetrated the system. Carbolic acid, salicylic acid, thymol, pilocarpine, iodoform, taya, and many other remedies, have been recommended in these later times, but the chief credit has always remained to mercury.

Mercury is used internally and externally; externally, in the form of baths, fumigations and frictions; internally, by inhalation, by the stomach, by the rectum, and lastly, by hypodermic injection.

When baths are used, the sublimate is generally preferred, at a dose of two to ten grams in a common bath. It is very useful, especially in infantile syphilis, and care must be taken to use it only when the skin does not present any ulceration, nor any solution of continuity capable of promoting the absorption. The patient remains in the bath from an hour to an hour and a half, and it is repeated every two or three days. In case of extensive serpiginous ulcers, or of softened and ulcerated gummata, disseminated in various regions, the dose of the sublimate in a bath must never be higher than two grams, as to act simply as a modifier of the eruptive form.

Fumigations, recognized since the sixteenth century by the Italian, Nicholas Massa, and now commended by Langston Parker, and by Paschkiss, of Vienna, consist in exposing the affected parts to the vapors of cinnabar, or to calomel, according to H. Lee. This method is especially adapted to those individuals possessed of a special constitution incapable of supporting mercury in any of its more active forms. Inunction is preferred in individuals unable to tolerate the remedy by the stomach, or by the hypodermic injection. But this plan of treatment is rarely regularly executed, because, as soon as the patient feels a little bettering of his sufferings, he will discontinue the tedious and uncleanly frictions, and stop the treatment.

The inhalations of sublimate do not act advantageously on general syphilis, but possess a curative value in some affections of the larynx and pharynx. The method most commonly used in the administration of the remedy by the stomach. Mercury is used by the stomach in those cases where, from the exceeding delicacy of the skin, the mercurial ointment causes inflammatory and vesicular eruptions of more or less extension, and where particular reasons prohibit the method of inunction. It is well known, and we must not forget, how mercury irritates and tires the stomach and enfeebles it; and in individuals badly organized, with morbid or hereditary dispositions, or affected with other diseases, the treatment often fails, and the syphilitic forms are reproduced, and become remittent and malignant. O'Connor proposed the introduction of mercury by the rectum in the form of suppositories. This method seemed once the surest; secret, easy, and of no annoyance to the patient. But practice has shown that only few patients could support it three or four weeks, and that almost all of them suffered with tenesmus, pains, and recto-intestinal catarrhs. Wallace made known the value of the potassic iodide. This can be given from the beginning to subdue the phenomena of syphilis, but it does not have any decisive action, except in the later forms.

Such a development as the hypodermic method has made in these few years in the treatment of syphilis, in defiance of the false and wrong interpretations of the various opinions, and of the disheartening reports from renowned authors, demonstrates

that this method of administering medicines is a serious and a necessary practice of the clinical physician.

To Lewin belongs the merit of having introduced the hypodermic injections of mercury in the treatment of syphilis. He has largely used the method in the Charity Hospital of Berlin, and has obtained surprising results. From that time, this mode of treatment gradually generalized to such an extent, that to-day a physician of the large clinics of Europe is rarely found, who does not use this useful method to conquer and dispel the syphilitic manifestations, without the least injury to the stomach, in an energetic and eminently quick way.

In May, 1866, the *Lancet* contained a report of Dr. Berkely Hill, who had treated eleven individuals affected with constitutional syphilis by the hypodermic injections, made of a solution of corrosive sublimate. In four of the individuals, five centigr. of the salt were sufficient to determine hydrargirosis; in other four seven centigr. were needed. The quantity used was one centigr. in each inoculation; higher doses produced colics and diarrhœas; moreover, the inoculated spot remained painful for some time. Only once he saw a pustule develop in the place of puncture. Scarenzio, professor of syphilis in the University of Pavia, was one of the first to make use of the hypodermic method after Lewin. He injected calomel at a dose of twenty cent., and once of thirty cent., with a gram of dist. water and one-half gram of mucilaginous liquid, and reported to have obtained rapid cures without salivation. Only in few cases he saw the development of a small abscess, which rapidly healed after incision. C. Manassei, professor of cutaneous diseases and of syphilis in the clinic of H. Gallicanus, Hospital of Rome, repeated the experiments of Scarenzio, but, knowing the inconveniences of the abscess which generally followed the inoculation of calomel, to prevent it, and to make more applicable the hypodermic method in private practice, thought to use small and often repeated doses of corrosive sublimate; so doing, he had it immediately absorbed, and avoided the cauterizing action of the same. But, fearing that the corrosive sublimate introduced under the skin would produce gangrene, he experimented at first in the rabbit, and having obtained good results without any inconveniences in the skin, he used it to a

large extent in the treatment of many syphilitics, whose clinical histories yet remain in the archives of St. Spiritus Hospital. The daily dose was one centigram in diluted solution, divided in two injections in different localities.

Dr. E. Rasori, assistant to the clinic in the Hospital of Venereal Diseases, of Rome, reports * to have treated, up to December, 1879, forty-six patients affected with syphilis with the hypodermic injections. He accurately followed the course of the disease, experimented on the action of the remedy, and constantly kept them under observation up to 1881, so as to be able to notice any return of the disease, if happening. Of these, he reports 38 completely cured, and eight he denotes as ameliorated, for they were lost sight of, although at the time of dismissal from his care he considered them as cured. Of these, 29 were men, and 17 women. The number of injections used in each patient were 25 to 30. Only in three cases he resorted to calomel injections; the balance were treated with the sublimate.

Martineau has reported over 170 cases treated with the injections. He prefers the peptonate of mercury, and believes that his method of treatment acts more promptly and energetically upon syphilitic manifestations than any other.

Grefberg has also reported a large number of patients treated with the injections. He used the bi-cyanuret of mercury with little morphine. His results have been good.

Professor Semmola, of Naples, has also reported quite a number of syphilitics cured with the subcutaneous injections. He injects one or two mill. at a time, and repeats the operations two or three times a day, without any local accidents. In 25 to 30 days he has cured the most confirmed cases of syphilis. He especially reported two cases, in whom he made 25 injections of $\frac{1}{2}$ centigr. a day of the sublimate, with a complete cure. To avoid any local irritation, he adds to the sublimate a chloride and albumen. His formula is: Corrosive sublimate, 25 centigr.; sol. ammoniac, 3 grams; water, 30 grams, and to this he adds the white of an egg, which produces a clear liquid, somewhat dense, of which he generally takes two drops, which correspond to two milligr. of sublimate, and injects with a gram of distilled water. Prof. D'Amicis

* *Giornale Intern. delle Scienze Mediche.*

has also used to a large extent the corr. sublim. in diluted solutions, in hospitals and private practice, without the precaution of the chloride of ammonium and the albumen, as Prof. Semmola, and the injections were very well tolerated. Wrongly some have denied the prompt absorption of the mercury, inasmuch as Scarenzio and others, by introducing a catheter in Steno's duct, found in the saliva traces of calomel 24 hours after the injection of 20 cent. of calomel. The hypodermic method is sufficiently energetic. When a prompt improvement is needed for fear of grave morbid sequences, for instance, in case of iritis, with danger to the bulb and the visual faculty; in symptoms of cerebral compression, or in women in an advanced stage of pregnancy, with a possibility of an abortion or of near death of the fœtus; and in cases of desperate and malignant syphilis, it is of the utmost value to use corrosive subl. hypodermically; or, better, calomel with care to promptly open any abscess, if happening in the spot of inoculation.

I have seen in Rasori's clinic, with only one injection of 25 cent. of calomel suspended in $1\frac{1}{2}$ grams of glycerine, a speedy bettering of an iritis within 24 hours, in a woman of feeble constitution, affected with tertiary syphilis; and also in two males who presented secondary manifestations of the disease. In the latter, one injection was sufficient, while in the former, two were needed. In a few days the photophobia, the pain and the redness rapidly diminished, and the pupil slowly regained its mobility. At the same time atropine was used locally, and the abscess, when opened, promptly healed, without any consequences.

A young woman twenty-six years old acquired a syphilitic infection. She applied to me in the month of April, 1881; she was then suffering with the secondary manifestation of the disease, and a marked bilateral iritis. The pain and the photophobia were intense; the pupil fixed, irregular, and with almost impossibility to fix upon any object. I injected in the left arm 20 centigr. of calomel in a gram of glycerine. Next day, the left eye showed a slight bettering, but the right one almost none. I then again made another injection, in the right arm. In 24 hours the bettering was marked in both eyes; a little more in the left. She stood on that day a prolonged examination. No more injections of calomel were made, but atropine was applied, and the bandage.

In about 20 days, the patient could use perfectly both eyes. The small abscesses produced by the injections were opened, and promptly healed. I finished the treatment of the syphilis with the sublimate injections. After 23 injections, every symptom disappeared, and after eight more, I pronounced the patient cured; in all 31 injections. Never saw the patient again until three months ago, when I learned she enjoyed good health, and thought to be in the second month of pregnancy.

The energy of the hypodermic treatment is also proven by the brevity of the time in which the symptoms disappear. In the greater number of cases which Rasori reports, after 20 injections, made alternately, the secondary symptoms of the diseases disappeared; in the worse cases, 30 to 40 injections were used, but rarely this occurred. He says that more than once has it occurred to him to see in a few days, as of wonder, the disappearance of symptoms which seemed permanent; such bettering rarely occurred in the ordinary method of treatment. Generally, the injections ought to be continued until, by palpation, we cannot any longer feel the indurated cervical glands. Only then we can feel sure of the complete cure. The determination of the complete cure of syphilis is one of the most difficult clinical tasks; many years of constant observation are necessary, not to the patient alone, but the observations must be carried to his offspring. Many authors assert that relapses are less frequent when the hypodermic method is used. During this treatment I have never seen a patient presenting any disturbance of the digestive or circulatory apparatus, nor in the function of the senses. In rare cases, traces of albumen may be found in the urine, which soon disappear, and never reach a notable amount. A progressive bettering and a better aspect of the patient is noted, and we feel sure that under the action of the treatment, the disease is sensibly ameliorated. The action of the remedy is very often shown in the salivary glands, although in many cases remaining unobserved; the patient feels only a slight metallic taste, of which he most frequently becomes aware when he is questioned about it; therefore, instead of being a true sensation, it may be only a mere fancy. Sometimes a little redness appears along the border of the gums around the teeth, especially if these are decayed. But if the mouth and

the fauces are regularly kept clean and in good condition, we can almost remain assured that the worst forms of syphilis can be cured without the least salivation.

The solution most commonly used by Rasori is: *R.* Corrosive sublimate, 1 gram; distilled water, 100 grams; chloride of sodium, 1.50 grams. This, filtered and bottled, will keep for some time. The addition of the chloride of sodium is found to be of great value, inasmuch as with it the amount of coagulation and infiltration in the point of injection is less, and the absorption is considerably increased; this is explained by the more easy and rapid solubility of the albumen precipitated by the sublimate in the connective tissue. It is a rule never to use more than one gram at each injection. The calomel is used suspended in glycerine, at a dose of 30 centigr. in two grams of liquid. If this dose is used, an abscess will follow, while by injecting 5 centigr., no notable reaction occurs in the spot of puncture. This mixture must be prepared always before using. Sigmund affirms to have obtained more favorable curative results with small doses of calomel (5 to 10 cent.) than with higher ones. According to his assertions, in many cases, not only he failed to see the abscess, but also the pain.

The cutaneous injection, considered as an operation, is most simple, and does not present any important singularity. Glass syringes, mounted in hardened rubber, are to be preferred to metal ones. The operation is conducted in the same manner as is every day done with any hypodermic syringe.

Ordinarily, the injection produces no pain in the act of operation; in some cases, the part becomes somewhat painful, but the pain easily ceases on the application of wet compresses. The addition of morphine to the liquid is not necessary. When the skin is delicate and sensitive, there remains a small circumscribed indolent induration, the shape of a node, which lasts some little time, around the puncture, and if another injection is attempted in the same place, the liquid will not penetrate, but regurgitate. From this, the rule not to make the punctures too near to each other.

The gluteal and dorsal region is generally preferred for the thickness of the skin, and for the little pain produced by the movements of the body. In worse cases, where it is necessary

to act rapidly, and calomel is used, the injections are better to be made in the arm, at the insertion of the deltoid and biceps, where any abscess which may be forming can be easily emptied and treated. The formation of an abscess is the greatest charge against the hypodermic method, but in the greatest number of cases, it is mainly due to the rough manner of the operator, and to the too little attention paid by him. One thing which is seldom recommended sufficiently, is to keep the syringe clean; it must be washed and diligently dried. It is unnecessary to say that it must be used only for syphilitic patients.

The syphilitic manifestations are easily disturbed, made worse, and rapidly changed by external influences that act unfavorably on them; therefore, hygiene is of utmost importance in the treatment of syphilitics. The patient must seek uniformity in the mode of living. Moving, exercising and attending to daily duties are not to be avoided, unless done in excess. In stormy weather, in-doors is necessary, and also a uniform temperature of the room, renovating frequently the air, without any exposure to any current, to avoid taking cold. The patient will keep to his room and bed in case of a general eruption of symptoms, or during an energetic treatment. The obstinacy of the disease frequently makes a patient despondent, downhearted, and lose confidence in the treatment; here the authority of the physician will do great good.

The diet should consist of such food as is easily digested, nourishing, and not stimulating. Meat, milk, eggs, light vegetables and starchy food is to be preferred daily; while aromatic and compounded drinks, vegetables, fats and alcoholics are to be avoided. Smoking is also to be avoided, especially if the oral mucous membrane is diseased. The irritation of the smoke interferes with the healing of the local lesions of the mouth long after the disappearance of the symptoms, just in the same manner that rough work will produce identical results in the psoriasis of the hands, and scratching in the acneiform eruptions of the face.

Tonics and ferruginous preparations are of great benefit in the feeble, lymphatic, in the marasmus of syphilis, and in tardy manifestations of the disease. Marine air, and living in thermal and mountainous regions, are of benefit.

In the gummous tertiary forms, the decoction of Zittman has lately been highly praised, and was largely used by Hebra. Besides such substances as alum, sugar, cinnabar, senna, etc., its action is mainly due to sarsaparilla and calomel. The treatment and the hygienic rules are to be followed for some time after all symptoms have disappeared, to avoid any returns.

I have had occasion to treat some syphilitics with the methods that I have endeavored to explain to you in this paper. I would relate their histories, methods of treatment adopted, and results, but I fear I have already delayed myself too long. My expectations with the hypodermic injections of mercury in the treatment of syphilis have been successfully fulfilled, with great satisfaction to myself and happiness to my patients.

From all that I have so far said in a brief and imperfect manner, I wish not to deduce that the injections constitute the only sure method to conquer all the stages and morbid phenomena of syphilis, nor that they are to be preferred to any other therapeutical method. My intent is only to make known their utility, and the convenience that they afford in public institutions; the little time lost by the patient and the physician; the brief inconveniences that they cause; the little or no danger of stomatitis and of mercurial salivation; the little disturbance to the stomach; the secrecy with which a treatment can be continued; the satisfaction to be able to determine the exact dose of mercury introduced in the organism, and the certainty of the exact continuance of the curative method, which in other ways depends upon the caprices, the business, or the ideas of the patient; and moreover, it is regulated by the constant watch of the physician.

In the greater number of cases, an energetic treatment is effected with the injections, which, without any notable disturbances and bother, bring to a rapid and durable cure, rarely followed by any returns; a result that we can hardly hope to obtain by adopting other methods.

ARTICLE III.

CASES FROM PRACTICE, BY R. G. BOGUE, M. D., CHICAGO.

Fibroid in Abdominal Wall.

Mr. Allen, age 28, about two and a half years ago noticed a small lump in the abdominal wall, a little above, and to the left, of the navel. It steadily increased in size, but was neither tender nor painful, the only discomfort experienced coming from the hard bunch being pressed upon by the clothing and hit by anything held against that part of the abdomen. Of late it had increased noticeably in size, and being alarmed about its growth, he sought advice. Upon examination, a tumor about the size of a fist could be felt evidently in the abdominal wall, occupying a place a little above and to the left of navel, extending to near the border of the ribs, not movable laterally, nor upward nor downward; could be pressed backward somewhat, but not lifted forward; the skin freely movable over it, resonance behind it, no tenderness, and not painful. Diagnosis, probably a fibroid growing in the sheath of the rectus, or in the hard part of the abdominal wall. Extirpation was advised.

September 23d, assisted by Doctors John Bartlett and G. W. Reynolds, I removed the tumor under the carbolic spray, the patient being etherized, after dividing the skin and found the tendon in front of the muscles very much thinned. It covered the tumor and was adherent to it, except at the outer border, where it seemed to have been separated and crowded downward. The muscular fiber was exceedingly thin, and but little was seen except along the border of the ribs and at the lower edge of the tumor where the rectus seemed adherent to it. The tumor was separated from its attachments and enucleated from its bed and removed without difficulty. When the tumor was removed there was left a cavity with tendinous borders, mostly, and which had for a floor the peritoneum. Two or three vessels were tied with catgut, and the wound closed by passing through all of the tissues to the peritoneum, sutures of silk-worm gut, thereby drawing the tendinous borders of the opening as near together as possible. A drainage tube was left in the lower angle of the wound, and a

Lister gauze dressing applied. The dressings were changed at the end of every twenty-four hours; they were soiled somewhat by a moderate discharge of bloody serum; the drainage tube was removed. The whole wound healed by first intention, there being no soiling of the dressings except the bloody serum of the first day. The sutures were removed at the end of a week, having held the parts very nicely, and with very little irritation and no suppuration around them. The patient suffered during the first forty-eight hours with quite severe spells of colic, caused by gas within the intestines. This was quieted by morphine and a mild laxative. There was no other annoyance, and in ten days he was able to be out of bed. He is to wear for a prolonged time a snugly fitting band to protect the weakened part of the abdominal wall.

I would call attention to the silk-worm gut for sutures. It is more easily or readily used for closing a wound than silver wire; is a source of as little irritation and may be left in place for any necessary length of time, up to two weeks, provoking no suppuration, and is readily removed, more so than wire. Either of them is, we think, far preferable to silk. The drainage tube has served its purpose; allowing the escape of blood and serum directly after operation, by the end of 24 to 48 hours, and should then be removed, in most cases.

Excision of Knee-Joint for Chronic Adhesive Inflammation—Recovery.

CASE I. Fannie B., aged 16 years, came under my care March 22, 1877. Four years previously she had experienced sudden pain and stiffness in the right knee, which soon became hot and swollen. At the end of three months, having meanwhile made cold applications, she had regained fair use of the limb. For two years she suffered no inconvenience, but, after convalescence from typhoid fever, she was compelled to use crutches, the knee being stiff, swollen, tender and painful; was well nourished, and general health good. The excision of the knee was determined upon. The usual horse-shoe flap was made, when it was found that there was no ulceration, but that the synovial cavity was nearly obliterated by bands of adhesion; the

inner condyle was enlarged by chronic inflammation. In consequence of this enlargement the patella was apparently displaced outwards upon the external condyle. The articular surface of the tibia, the patella and the condyles of the femur were removed; the flap was replaced; several sutures were inserted; the limb was dressed on a long posterior splint, which was suspended from a frame; a drainage-tube was inserted into the angle of the wound, which was covered with a carbolized compress and oiled silk. Anodynes were administered as needed.

During the two days following the patient had severe nausea and vomiting, but after that time presented not a single unfavorable symptom. Her pulse ranged from 90 to 116; her temperature from 100 to 102.

April 18.—Hodgen's anterior splint was substituted for the straight splint. On the 20th this was replaced by a plaster of Paris dressing, which was made to grasp firmly the thigh and the leg, and was especially strong behind the knee, but was cut away above so as to leave the wound exposed.

June 4.—The drainage-tube was removed.

June 14.—Patient began to walk with the aid of crutches.

July 4.—A small piece of bone was removed from one of the sinuses still open.

Several small sinuses remained obstinately open until the middle of October. During her long sojourn in the hospital patient's general health continued excellent, and, upon her departure, November 2d, she walked readily with a single cane.

Four years later the patient was seen. The leg had given no trouble and was a good and useful limb, but short about four inches.

Excision of Hip-Joint—Recovery.

Willie J., 10 years old, was admitted March 12, 1877. Three years previously he had fallen down and hurt his hip, after which time he was unable to rest the entire plantar surface of the foot on the ground, but transmitted his weight through the toe. A year later there was a discharge of pus from an opening at the posterior border of the great trochanter. The sinus closed and re-opened several times.

On admission the right leg and thigh were found somewhat atrophied; the thigh slightly flexed and adducted; the hip-joint ankylosed. There was a sinus at the posterior border of the great trochanter and a large fluctuating tumor at the upper and anterior aspect of the thigh. The patient complained of great pain in the right knee.

Examination under an anæsthetic detected no carious bone the sinus leading down simply to the capsular ligament.

April 4.—An incision was made over the great trochanter and the upper extremity of the femur removed just below the lesser trochanter. The head and neck were mostly ulcerated away, a mere shell of bone remaining. Alcohol dressings were applied; the limb was extended by weight and pulley, counter extension being made by elevating the foot of the bed.

During the next week the pulse ranged from 120 to 140; the temperature from 101° to 104°. The general condition gradually improved, the pulse and temperature fell, the discharge continued profuse and on April 18, a drainage-tube was inserted. April 24, an abscess was evacuated below Poupart's ligament. June 6 to 26 he complained of more or less pain in the right knee.

July 7.—Extension was removed in consequence of ulceration beneath the straps, but was renewed August 10. September 1, patient was allowed to leave his bed and to walk around on crutches. November 6, several fragments of carious bone were removed, the discharge still continuing. December 15, a section of the complete circumference of the femur (the cut end) one-half inch long escaped from a sinus on the outer side of the hip.

There still remains (February 8) two sinuses leading down to carious bone. The boy enjoys good health and exhibits great activity upon two crutches.

Excision of Knee-Joint for Chronic Destructive Inflammation—Pyæmia—Death.

Peter J., 26 years old, was admitted Nov. 2, 1877. Five years previously he had been thrown from a horse, sustaining an

apparently slight bruise of the left knee. With the exception of a little soreness in walking for two or three days, he experienced no inconvenience. Three years later, without any provocation, so far as he knows, the knee became red, swollen and tender, and after some days there burst from the knee, just below the outer border of the patella, a little yellow, watery liquid. There was, for two or three months following, a slight but constant discharge of similar liquid, at the end of which time the sinus closed.

Three months prior to admission, without the infliction of any violence, the knee became so painful that he was compelled to keep it quiet, and in this condition he entered the hospital. Hot fomentations were applied with the effect of still further reducing the swelling.

Nov. 27.—Patient was etherized and an exploratory incision was made into the joint revealing about two ounces of pus and extensive ulceration of the articular cartilages and bone surfaces. The usual semicircular flap was then raised and the condyles of the femur, patella and the articular surface of the tibia were at once removed. The flap was replaced; sutures inserted; the limb was placed upon a long posterior splint, and alcohol dressings were applied.

The patient had no untoward symptom until the morning of Dec. 3, when there occurred a slight chill. A second, more violent, occurred Dec. 5. His pulse and temperature remained high, and in a few days frequently recurring chills, profuse perspiration, a pinched countenance, cessation of suppuration rendered unmistakable the toxæmic condition. Death occurred from pyæmia Dec. 20.

The cut surface of the tibia was found to be granulating, that of the femur sloughing.

Abscess in Lower End of Tibia.

Annie Martin, aged 29, when about nine years of age fell, bruising the right shin. It gave her but little pain at first, but in the course of three or four weeks an abscess had formed over the front of the middle part of the tibia, which remained open for two or three years. Occasionally small bits of bone came from it.

At the end of this time it closed, and remained so for about twelve or thirteen years. A small abscess formed seven years ago which soon closed; and about five years ago another formed at seat of the former ones, which was open for several months. Three years ago an abscess formed near the upper end of the tibia, which soon closed after opening. About one year ago the lower end of the tibia began to enlarge and became painful. When I first saw it there were numerous cicatrices along the front of the tibia from the old inflammation, of superficial necroses which had occurred. These cicatrices were adherent to the bone, but there was no tenderness of the bone except at the lower extremity, which was enlarged, moderately tender upon pressure and the seat of severe pain, especially at night; no particular redness of the skin. It had been gradually enlarging, becoming more and more uncomfortable, and, finally, painful for about a year. From the even and uniform enlargement, absence of soreness of the skin, although the bone coverings were sensitive and the deeply seated and severity of the pain, it was thought there must be an abscess in the lower end of the tibia.

Up to this time, the latter part of August, 1879, she had continued at her work as chamber-maid and table-waiter in a hotel. It was treated for about a week by rest in an elevated position enveloped in a warm anodyne fomentation. No relief being obtained from this treatment, it was decided to make an exploration of the bone.

Sept. 4, 1879.—Patient etherized; an incision made through the coverings of the bone over the most prominent part of the swelling, just above and a little to the front of the middle of the base of the internal malleolus. The periosteum was found thickened. The bone was pierced with a Brainard drill, and, after boring to quite a depth, a cavity was reached. On removal of the drill a drop or two of pus welled up through the opening, which established the fact of an abscess. With a trephine a button of bone was removed, uncovering a cavity which would hold about half an ounce of fluid, about which quantity of pus was removed. No bone fragments were found. The cavity was cleansed, a tent left in and ankle enveloped with an antiseptic wet dressing. After a few days a wax plug was fitted into the

wound and covered with oakum. It was cleansed daily. There was very little pain after the operation. Oct. 2, a point of bone was noticed in the granulations and, on removal, proved to be a ring of bone which had necrosed from about the opening made by the trephine.

The cavity gradually filled with granulations; the wound cicatrized, and by Nov. 13, when the patient was discharged, it had healed; and now, at the expiration of a year, the limb is entirely useful, not painful and not tender. There is enlargement remaining.

ARTICLE IV.

REPORT OF TWO CASES OF HYDROA. By EDWIN R. BENNETT, M.D., Cook County Hospital, Chicago.

Prof. Duhring defines hydroa as an acute inflammatory disease, characterized by one or more groups of variously sized vesicopapules or vesicles, arranged in the form of concentric rings, attended as a rule by the display of varied colors. All cases of a disease are not typical therefore. I present the following cases taken from the records of the Cook County Hospital, as presenting some interesting points;

Case 1. J. R.; Swede; æt. 21; occupation, clerk.

No history of any previous sickness, or family taint.

Only venereal lesion, gonorrhœa; all lesions pointing to syphilis wanting; drinks beer daily, moderately.

Admitted to hospital September 8, 1882.

One and one half weeks before admission, without any known cause, patient discovered reddish macules, shortly becoming vesicles and in some instances the vesicles uniting to form bullæ, appearing on the backs of hands, fore-arms, legs and feet, varying in size from pin head, to that of a hickory nut. In from twenty-four to forty-eight hours after the first appearance of the lesions, the contents which before were yellowish serum, would in some instances disappear without further change, while in others the contents become cloudy, soon rupturing and drying into a lightish scab, which would disappear in a few days. In certain in-

stances when the macules were violently ruptured, an inflammatory condition of the base would ensue, with the production of a few drops of pus. It was also noted that while it was developing in one part, it would be undergoing retrograde metamorphosis in another.

Neither did the lesions assume a distinctly circular form nor present the variegated and delicate tints that gave us the German name herpes iris.

Its location and symmetry are to be observed, occurring with remarkable regularity on both hands, forearms, legs and feet, dorsal aspect only in each case. An entire absence of constitutional disturbance was noted, and the only local symptom was slight soreness. Cod liver oil was given internally and carbolyzed cosmoline locally. In a few weeks the patient was discharged cured.

Case. 2. J. M.; æt. 25; English; lawyer by occupation. Habits temperate. Only venereal accident, gonorrhœa. Admitted October, 6 1882.

Present trouble began August 1, by development of vesicles on back of hands and forearms. There were no bullæ, each vesicle ruptured spontaneously, some disappearing without further change, in others the contents dried in a lightish scab which was quickly exfoliated, leaving a reddened base. Order of appearance; 1. hands, dorsal aspect; 2. forearms, extensor aspect; 3. dorsal surface of feet, and lastly extensor surface of legs.

The disease has not affected his general health in the least, but on account of its distribution the patient imagines it is a severe disease and wants prognosis and treatment. A few days afterward patient was discharged cured. The treatment being entirely local and confined to a dusting powder.

An examination of the history given shows us that the disease in question, is in reality a harmless one, although formidable in appearance to the patient, and possessing characteristics sufficient to distinguish it from other vesicular, or vesiculo-bullous eruptions, the most of which are not harmless complaints. It is to be diagnosed from zoster by the absence of neuralgic pain and burning, and the situation, it not following the distribution of nerves.

From pemphigus, it is distinguished by being confined to certain limited regions and causing no constitutional disturbance.

From eczema, by absence of itching and infiltration of tissues. It is to be distinguished from all by its harmlessness.

All the medication required is a local dusting powder, its importance attaching itself to the diagnosis to prevent us from treating it for something worse.

ARTICLE V.

THE TREATMENT OF BUBO. By G. FRANK LYDSTON, M.D.,
Late Resident Surgeon Charity and State Emigration Hospitals, New York; Lecturer on Genito-Urinary and Venereal Diseases, College of Physicians and Surgeons, Chicago. (Read before the Chicago Pathological Society, March 12, 1883.)

The management of bubo, an affection which we are so frequently called upon to treat, even in general practice, is discussed in a very cursory manner by the majority of writers upon venereal diseases, and, I think, unjustly so, as the subject is a quite important one, and merits more attention than some of the rarer affections which are often allotted considerable space.

Notwithstanding the fact that bubo is a very common disease, it is only in large hospitals, in which there are wards devoted exclusively to diseases of a venereal nature, that we are able to make any accurate practical observations upon its management, for it is only under such circumstances that we have the patients completely under our control, and at the same time a sufficient number of cases to permit of the thorough application and comparison of the various modes of treatment. The results of treatment of isolated cases in private and dispensary practice are, to a great extent, modified by the habits and general conduct of the patient, which are quite frequently diametrically opposed to the directions of the surgeon, and may lead to the condemnation of really useful therapeutic measures. The patient, unless absolutely

disabled, will not keep quiet; and not only this, but he will oftentimes continue to carouse, and, indeed, to keep up genital irritation, in spite of strict orders to the contrary, probably thinking, as too many are apt to think, that the various remedies prescribed ought to do their work without the slightest coöperation on his part. There are many points which must be mentioned in connection with the treatment of bubo, which are familiar, but which will bear repetition in the systematic discussion of its management. This is especially true of the elements of rest, counter-irritation and pressure. Regarding the subject from a systematic standpoint, the treatment of bubo resolves itself into several practical considerations: 1st, we have the question of prophylaxis; 2nd, the prevention of suppuration; 3rd, the management of suppurating bubo; 4th, the management of sinuses and exposed lymphatic glands; 5th, the management of gangrenous and phagedenic bubo; 6th, the management of chronic or indolent bubo.

With the exception of the prevention of suppuration and the consideration of the treatment of gangrenous and phagedenic bubo, these headings apply equally well to both the simple and virulent forms of the disease. The formation of pus cannot be prevented when a bubo is of a virulent nature, and a simple bubo is not very liable to either gangrene or phagedena, although either may occur under certain conditions.

The prophylaxis of bubo comprises but few points, but they are all important. The liability to the occurrence of bubo is of course greatly enhanced by any virulent property that may exist in the chancroid, if such be the source of irritation, and is of necessity, therefore, much greater in chancroid than in gonorrhœa, balanitis, or any of the simpler forms of local irritation, which so frequently give rise to adenitis.

Prophylaxis is consequently much less likely to prove effective in chancroid, and especially in its virulent form. Whatever the source of irritation, the chief prophylactic measure is, of course, perfect quiet, but in most of our cases of gonorrhœa or balanitic affections, and indeed, in chancroid, unless large and destructive, this is not practicable. We should, however, approximate it as nearly as possible. The patient may, at least, be impressed with the importance of avoiding all strains and violent efforts as far as

possible. When a patient is compelled to go about during the progress of his venereal disorder, and especially if his occupation entails a certain amount of muscular effort, or prolonged standing at the desk or counter, an excellent plan is to apply a double spica bandage, with a compress in each groin, to prevent the injurious effects of strains by supporting the part. This should always be done on the first indication of inguinal irritation, unless the patient can rest for a time. Another essential feature of the prophylaxis is the maintenance of strict cleanliness of the genital lesion, thus avoiding the presence of irritating discharges. All irritating and cumbersome applications and dressing of the genital sores should be avoided as far as possible, and in case gonorrhœa exists, irritating injections should not be used. All greasy or fatty substances should be avoided, as a rule, in the treatment of genital lesions, as they readily decompose and become rancid, thus increasing the irritation already existing, and preventing the maintenance of cleanliness.

Ordinary ointments form such vile and filthy applications, that these remarks might seem superfluous, had I not seen several cases in which they had been used with deleterious effects, by different practitioners. When chancroid exists, the thorough destruction of the specific and virulent properties of the sore should be accomplished, thus obviating, as is generally accepted, the occurrence of anything but simple bubo, unless absorption of infectious material has already occurred, and greatly diminishing the liability to even that form.

This must necessarily be accomplished by the use of sufficiently powerful caustics. The substance used is of great importance. In spite of the advice of nearly all of our prominent authorities, I find that many practitioners use the nitrate of silver for this purpose. Now, in my opinion, this improper use of the nitrate of silver is a very fertile source of bubo, as it is but adding fuel to the fire. As a destructive cauterant under such circumstances it is worse than useless, as it sets up irritation, or even inflammation, without, as a rule, acting powerfully enough to destroy the specific characters of the sore. During the healing of the sore after its specific characters have been destroyed, the granulations may become sluggish; as may happen in any simple ulcer, in which

event the judicious application of nitrate of silver may be of great service. The same remarks will also apply to the sulphate of copper, which is sometimes used. Of the more powerful caustics, the actual cautery is, of course, the best, but it is not usually practicable to use it. The most generally used caustic is the fuming nitric acid. My own preference, however, is for the pure bromine. Either should be preceded by the pure carbolic acid, for the purpose of obtaining its anæsthetic effect.

I shall devote more attention to this subject in a subsequent paper, which I hope to be able to present upon the treatment of chancreoid.

An important prophylactic indication is to maintain the free action of the bowels, as otherwise the straining during stool will produce inguinal irritation. I find that patients with bubo very generally complain of pain in the groins during a difficult stool. There is nothing more of importance to be said with reference to prophylaxis, and this brings us to the consideration of the prevention of suppuration, or the attempt to abort a threatening bubo. This is perhaps the most important element of our present subject in some respects. In the event that, in spite of prophylaxis, a bubo sets in, we should always, in my estimation, make the most strenuous endeavors to prevent the formation of pus, as the healing of a bubo after incision or rupture is usually a matter of considerable time, and often is exceedingly slow, even in the best hands, aside from its liability to serious inflammatory or hæmorrhagic complications. In addition to these disagreeable features, there is the usual result of a very unsightly discolored cicatrix, a by no means unimportant consideration, especially in women. The anti-suppurative treatment of bubo comprises several measures. We have first that which is perhaps most frequently used—counter-irritation, either with or without pressure. This method and its principles are quite universally understood, and will require comparatively little comment. The counter-irritant most frequently used is the ordinary tr. of iodine; or, better, the compound tr. with an extra amount of iodine added. If combined with pressure, a shot bag of say five pounds weight, is an excellent method for its application.

A better plan for the use of pressure, however, is to apply a

spica bandage, over compressed sponge, which is laid upon the bubo, the sponges being subsequently kept wet with cold water. As the sponge swells, we have a very firm and equable pressure exerted upon the tumor, in addition to the antiphlogistic effects of cold.

The benefits derived from this form of treatment are explained by the local anæmia thus produced, and the prevention of further exudation. A very good method of applying pressure is by the free application of collodion. The bubo is first thoroughly painted with the tr. of belladonna, and as soon as this is dry, the collodion should be applied. This should be repeated daily. I have seen this plan act very well. A combination of the use of belladonna plaster and pressure is also recommended. Blisters are sometimes used in this stage of bubo, but are not effective in producing anything but discomfort. The application of leeches for the purpose of averting suppuration by causing local depletion, is, I think, to be deprecated, as the leech bites form lesions capable of becoming infected by auto-inoculation in case the bubo should prove to be a virulent one, and the fewer such lesions the better. The injection of carbolic acid into the substance of the inflamed gland is strongly recommended by Dr. M. K. Taylor, U. S. A., as a method of aborting bubo, but it does not seem to be as successful in other hands as it would appear to have been in those of its originator. My own experience with it is quite limited, but the few cases in which I have given it a trial have not afforded me any encouragement. It could have no effect in virulent bubo in any event, and its antisympthomatic power in even simple inflammation is, to say the least, doubtful. The mode of procedure is to make a number of injections into the substance of the inflamed gland of a 1-15 solution of ac. carbol. Busch, of Bonn, recommends Kern's cataplasm, which is composed of black soap and mustard, one-fourth or fifth. I have had no experience with it, but the rationale of its action is such that I am inclined to deem it worthy of trial. Mercurial inunctions are sometimes resorted to but in acute bubo should never be used, as, in common with all other applications requiring friction, they are injurious. In other phases of bubo we will hereafter consider their use. The iodide of lead ointment, in combination with the extract of bella-

donna, is oftentimes successful in aborting a bubo, if simple, and in diminishing the surrounding inflammation, if virulent, although it does not in the latter case prevent suppuration. I prefer this plan to the application of the acetate of lead as recommended by Ziessl and Patzelt.* Ziessl's method is to soak a number of compresses in a solution of the acetate of lead, and bind them upon the bubo, keeping them thoroughly wet. The ordinary lead and opium wash, with an increased proportion of both ingredients, is probably much better than a simple solution of the acetate. This was a favorite application with some of my hospital associates. Punctate cauterization is recommended by Vidal, but I do not think much of its usefulness in the acute form of bubo. A modification of it I am decidedly in favor of in the chronic forms, and will mention it in that connection. We now come to what, in my opinion, is the most powerful anti-suppurative measure at our command, the much-used and little-understood poultice. It is not long since such a claim for this remedy would have been greatly ridiculed, and it is even now held to be absurd by many practitioners. There is little said by those who advocate the use of poultices and hot fomentations in inflammation, in explanation of their action, save that they have an emollient or sedative effect, and favor free circulation, and it will perhaps not be out of place to attempt to explain, in some measure, the diametrically opposed effects of these applications. In the first place, it will be necessary to give a short description of those pathological changes in the tissues, which constitute an abscess, whether from bubo or other causes. As a result of inflammation, we have a localized accumulation of leucocytes in the inflamed tissues, these leucocytes, according to our best pathologists, having several sources for their production, viz: 1st, migration of white blood cells from the blood-vessels, notably the veins, into the tissues; 2nd, the leucocytes subsequently multiply by division, thus further increasing the amount of the purulent formation; 3rd, localized proliferation of the cellular elements of the connective tissue. As a result of the accumulation of cells, we have tension of the tissues, varying in degree with the amount of the corpuscular elements; there is also a certain amount of fluid transudation, constituting the liquor puris.

* *Archiv. für dermatologie und syphilographie Prag.*, 5 Jahrg., 1873-4 Heft.

There is in all inflammations profound circulatory disturbance, and at the period of purulent formation, this chiefly consists in obstruction and stasis, which is still further increased by the circumscribed collection of cells, to a degree proportionate to the tension present. As a result of the pressure, there is lymphatic obstruction, and consequent abeyance of the function of the absorbents. The vitality of the tissue elements is impaired to an extent greatly modified by the amount of pressure and circulatory disturbance, this impairment of nutrition being greatest in those tissues immediately contiguous to the accumulation of pus, and shading off into the surrounding tissue area. As a result mainly of the pressure of the purulent formation, a layer of partially organized lymph forms upon the tissues surrounding the abscess cavity, and this in chronic abscess forms a pseudo membrane, which has erroneously been termed the "pyogenic membrane."

In acute abscess, however, it simply shades off into the surrounding tissues, which are, in a measure, matted together by the inflammatory exudate. The thickness and degree of organization of the layer of lymph, and the extent to which the vitality of the surrounding tissues are impaired, which, as I have said, depends mainly upon the amount of inflammatory exudate, and the consequent disturbance of the circulation, determines the facility with which resolution of a circumscribed inflammation on the one hand, and the formation of pus upon the other, takes place. It has been very generally claimed that pus, when once formed in a circumscribed collection, cannot be absorbed, but this is erroneous.

It is well known that the first factor in the production of the phenomena of inflammation, is the existence of irritation, and that this results in the various changes which I have described. This irritation is augmented still further by the accumulation of inflammatory products. Now, when we apply a hot poultice to an inflamed part, we first relieve the irritation and pain, which has an immediate effect in preventing or lessening further exudation, and probably produce a certain amount of vascular contraction, with consequent anæmia, through the medium of the vaso-motor nerves. By lessening the amount of exudate, we lessen the amount of circulatory obstruction, and thus relive stasis

and diminish the impairment of nutrition resulting both from pressure and stasis. Relief of the circulation by lessening pressure is also attended by relief of obstruction, and the restoration of function in the absorbents, which changes are necessary for resolution.

If the inflammation has been very severe, and the exudation great, the nutrition of a certain number of the tissue elements has been so impaired that they cannot be resolved, and resorption, which readily occurs when the vitality of the tissues is only moderately impaired, cannot then occur. In an instance of this kind, the application of moist heat will fail to prevent suppuration, but will limit the amount of exudate, and prevent further tissue change. There is a certain area of hard indurated tissue about an abscess, as is well known, which area represents that, the changes in which I have described. According to the view I have presented, the cells in the outer portions of this area may have sufficient vitality to become resolved, while those in immediate relation with the abscess cavity have gone too far for such a change to occur. It is an observation that any one may verify, that the less the amount of induration surrounding an abscess, and the sooner it resolves or breaks down into pus, the sooner will the abscess heal after it is incised. There is much of truth in the popular idea that an abscess must be "ripe" before it is opened. Healthy granulations cannot spring up from tissues whose vitality is impaired by the pressure of a large amount of inflammatory exudate. The distinctness of fluctuation which is so evidently increased by poulticing, depends upon the amount of surrounding exudate, and at the same time that the tissue over an abscess is becoming thinned by the pressure of the pus, the inflammatory exudate in its meshes is being removed by the action of the poultices. We may formulate the action of moist heat, then, by saying, 1st. That it will prevent the formation of pus if the vitality of the tissue elements has not become too greatly impaired. 2d. That it will hasten maturation, and limit the purulent formation, if the impairment of nutrition has gone too far to permit of resolution. 3d. That it will diminish the indurated area about an abscess after incision or spontaneous rupture, and favor healthy granulation. It may be accepted, therefore, that poultices,

or the application of moist heat in some form, are beneficial at any stage of inflammation and abscess. Such applications, it is true, may be continued too long, with the effect of relaxing the tissues to such an extent that they become boggy and infiltrated, but practical experience alone will teach as how to avoid such a contingency. When we speak of the beneficial effects of poultices in the treatment of inflammation, whether of a lymphatic gland or any other tissue, we assume that such measures are properly applied, and not in the slipshod way which seems to be the rule. They are not, as a rule, properly made to begin with, and if hot at the outset, are quite likely to be allowed to become cool before they are applied to the part. Once applied, they are usually allowed to remain upon the part until they are cold, thus neutralizing any beneficial effects which may have been attained by the heat; if, indeed, the inflammation has not been augmented by the clumsy manipulation, as well as the rapid changes of temperature to which the part has been subjected.

As many practitioners, even, are lame in the apparently trivial question of poultice-making, or, if well versed in this, are in the habit of leaving the matter to the nurse, a few words upon this subject may not be superfluous. An emollient poultice, to be of service, should be sufficiently large, whatever its composition, to extend beyond the borders of the inflamed area; in short, should be a generous one. The material should be gradually stirred in boiling water, until of the proper consistency, and should usually be made fresh for each poultice, and not set aside to become caked and lumpy, as a poultice of this kind is very uncomfortable and irritating. The batter should be spread upon thick muslin, in a layer of one-half to three-fourths inch in thickness, a space of an inch or so being left at the edges. If the inflammation be very painful, a few drachms of laudanum may be sprinkled upon the poultice. The whole is now covered with a layer of cheese-cloth, and the free edges turned over and secured in such a way that the poultice material will not ooze out and soil the person and clothing of the patient. It should now be quickly applied, and covered with oiled muslin. Thus made and applied, a poultice forms a very neat application, but as ordinarily constructed, the patient and his clothing get besmeared in a very disagreeable

fashion. A very convenient plan, especially in bubo, is to have a number of muslin bags of the required size prepared, to be filled and applied as required. A poultice should be renewed sufficiently often to keep it hot, or no benefit can be expected. A convenient method of obviating the necessity of making a fresh poultice for each application, is to prepare a number, and keep them hot by means of the ordinary utensil for steaming bread. After a bubo has been opened, antiseptic poultices may be necessary, and in such an event, equal parts of charcoal and linseed meal, mixed with hot yeast instead of water, form the best material.

The next anti-suppurative measure worthy of attention is the internal administration of the calx sulphurata, or, as it has been erroneously termed, the "sulphide of calcium." The pure sulphide of calcium is not found in the drug market, nor has it ever been used therapeutically. Calx sulphurata, or the sulphurated lime, as described by the new pharmacopœia, is a mixture of the sulphate and sulphide of calcium in varying proportions, and containing not less than 36 per cent. of the latter in pure form. This drug has been highly lauded as an antissuppurative, and has been especially recommended in the treatment of bubo. Otis, in particular, has praised its action in this affection.

Although the drug has been greatly overrated by some, and unjustly condemned by others, I am of the opinion, derived from a considerable experience in its use, that it is a remedy of great value, and that it will produce several marked effects, varying with the character of the inflammation. Its action in the prevention of suppuration is similar to that of poultices, and like the latter, it will, unless the inflammatory changes have gone too far to permit of resolution, favor suppuration and hasten maturation. The rationale of its action is probably the same as that of moist heat, with the exception of the absence of the local sedation produced by the latter. It also, I think, acts by producing fatty degeneration of the inflammatory exudate, and thus relieving the circulation, or in a manner analogous to mercury. Unlike poultices, it will cause pus which is already fully formed in a circumscribed cavity to become absorbed, probably through this same fatty degeneration. The possibility of this is by many denied, but I have seen many instances of such action. One of these I

will cite, as especially striking. A pale, lymphatic female entered my ward in the hospital, suffering from a slight vaginitis, probably gonorrhoeal, and presenting in the left groin a suppurating bubo, of a particularly chronic character, there being distinct fluctuation throughout, and no redness or induration about it. The tumor was as large as a good-sized hen's egg, and the skin covering it was so thin, that I expected it to burst spontaneously during the night after her admission. On the next day, I was about to incise it, but the woman was so anxious to avoid a scar, that I put her upon one-half gr. doses of the calx sulphurata every three hours and deferred the operation.

Much to my surprise, the pus entirely absorbed in less than a week. The dose of the drug should vary with the stage of the inflammation. Where it is desired to prevent suppuration, the dose should be from one-twelfth to one-tenth gr. every hour. When, however, the inflammation has so far advanced that suppuration is inevitable, the dose should be increased to about one-fourth to one-half gr. every three hours. In chronic and indolent bubo, and in cases in which unhealthily secreting surfaces or sinuses are left after incision or rupture of the abscess, the last-mentioned doses will often speedily bring about a healthy action, the surrounding induration rapidly disappearing, and the character of the pus changing from sanious or ichorous to a free laudable secretion, after which granulation is quite rapid. The great variance of opinion as to the effect of the calx sulphurata in inflammation is only explicable by the ignorance that prevails in respect to its proper use. Like moist heat, this drug, in proper doses, will produce beneficial effects at any stage, or in any variety of bubo. As much as has been said of the antissuppurative treatment of bubo, we are compelled to acknowledge that it is only effective in simple bubo, and that the virulent form must inevitably suppurate, but as our anti-suppurative measures may, under certain circumstances, also promote maturation, and will always limit the surrounding inflammation, they are always indicated. Again, it is not always possible to affirm that a bubo is virulent prior to suppuration. If, however, the primary lesion be an auto-inoculable chancroid, and the resulting bubo runs a very acute course, we

are warranted in assuming that it is virulent. After the bubo is opened, the diagnosis is, of course, quite easy.

The importance of constitutional measures in the management of bubo can scarcely be overrated, and may properly be alluded to in connection with the anti-suppurative treatment of the disease. As soon as bubo threatens, the derivative effect of free cathartics should be obtained, and throughout the course of the affection mild cathartics should be given, for reasons stated in connection with the subject of prophylaxis. If the patient be at all debilitated, tonics should be freely given, and if struma be evident, cod-liver oil and the syr. ferri iod. should be administered. As a rule, too much dependence is placed upon local measures, and too little attention given to the constitutional condition. How often do we see a chronic, indurated, open bubo heal in a short time under proper measures of constitutional treatment. There is one point with reference to the prevention of suppuration in bubo, which it may be well to mention. We will find a great many patients who object to any measures which are calculated to "scatter" the bubo, on the ground that such a plan "drives the poison into the blood," and we will also find that if we succeed in aborting the bubo, all subsequent eruptions of the skin, and perhaps other troubles, will be laid at our doors. Their objections are mainly to such measures as they can understand to be anti-suppurative, such as the application of counter-irritation and pressure. There might be some foundation for this popular notion, if it were possible to discuss a virulent bubo. When we find a patient of this kind, however, we should do our utmost to promote suppuration, hoping that the resulting scar will be sufficiently large and unsightly to give satisfaction.

The treatment of suppurating bubo is the next topic for consideration, and has been indicated to some extent in the discussion of the action of moist heat and calx sulphurata. When we find that suppuration is inevitable, which is always the case in virulent bubo, we should at once endeavor to promote the formation of pus by every means in our power. If poultices have not already been employed, we should at once apply them, in conjunction with hot fomentations. If calx sulphurata has already been used, we should now increase the dose to its maximum, which

should ordinarily be about one-fourth to one-half gr. every three hours. Larger doses may, however, be given. As soon as fluctuation is distinct, and the surrounding induration has in some measure disappeared; in short, as soon as the abscess is "ripe", it should be opened. An early opening is essential in virulent bubo, as we are very apt to have burrowing in this form. We have already seen that when a simple bubo is opened too early, the process of repair is apt to be very slow. There are exceptional instances in which other measures than incision are best in the treatment of suppurating bubo, but these are cases of the sub-acute or chronic form, which we will consider later on.

The manner of opening a suppurating bubo is of great importance. As a rule, the operation is only half done, a simple small incision being made, which is barely sufficient to give exit to the contained pus, and entirely inadequate to permit of the proper cleansing of the abscess cavity. If the bubo be virulent, troublesome and extensive burrowing is apt to occur. The only way to prevent this, is to lay open all sinuses and pockets thoroughly. As soon as the pus is evacuated, the abscess cavity should be washed out with a five per cent. solution of carbolic acid, or some other disinfectant solution, and if at all virulent in appearance, the pure carbolic acid should be thoroughly applied by means of a swab, and should be carried to the bottom of all sinuses and depressions. The edges should now be thoroughly cut away, if at all undermined, and the cavity converted into the shape of a saucer, as nearly as possible. The cut surfaces will require the pure carbolic acid to prevent infection. The peroxide of hydrogen, a substance which has recently come into great favor as an antiseptic, is useful as an application to both virulent bubo and chancroid, apparently destroying the specific properties of these lesions, and setting up healthy action in the most remarkable manner. It may, therefore, oftentimes answer the purpose of cauterization with more powerful irritants, or detergent and antiseptic substances. Not more than two or three applications are necessary, the sore taking on healthy action quite readily under this remedy.

When a bubo is of a simple inflammatory nature, which may usually be determined by the character of the pus, and the his-

tory and course of the inflammation, cauterization is unnecessary, and after having been thoroughly cleansed, the cavity should be packed with picked lint saturated in a 1-20 sol. of carbolic acid. If there be much surrounding induration, or if the flow of pus after the incision should be scanty, poultices should be applied. Virulent buboes should be packed with equal parts of boracic acid and iodoform, and a hot poultice applied over all. I much prefer the measures I have suggested, to the routine process of packing the abscess cavity with oakum and bals. Peru. In a few days, however, after the bubo has taken on healthy action, or if simple, and it requires gentle stimulation, the pure bals. Peru. may be applied on picked lint, not oakum. My preference is for the following formula, rather than the clear balsam:

R. Iodoformi..... \mathfrak{z} ii.
 Ac. boracici..... \mathfrak{z} ii.
 Bals. Peruviani..... \mathfrak{z} i.
 Vaselineæ ad..... \mathfrak{z} ii.

M. Sig. Apply upon picked lint.

When an application of a more stimulating nature is required, the following will be found useful:

R. Argenti nitratis..... \mathfrak{z} i.
 Pulv. stramonii fol..... \mathfrak{z} ii.
 Ext. belladonnæ.....gr. v.
 Cerati simplicis ad..... \mathfrak{z} i.

M. S. Apply.

The solid stick of silver may be required from time to time, as in ordinary processes of granulation. When a bubo is sluggish and secreting unhealthily, I have found a powder of equal parts of oxide of zinc and red cinchona bark to act remarkably well. The advantages of removing the edges of the bubo after incision, and converting it into a saucer-shaped cavity, are several. In the first place, it summarily disposes of the edges, which so frequently tend to invert, and almost invariably become indurated and thickened, thus preventing healing. 2d. It facilitates cleanliness, and enables us to make our applications to all parts of the cavity. 3rd. It prevents burrowing, and enables us to remove projecting glands with great facility, and also imparts to the bubo many of the characters of simple ulcers in other situations. 4th. It favors

rapid healing from the edges, as well as from the bottom, and leaves a much less puckered and discolored scar than when the edges are left. Of the various methods of evacuating a suppurating bubo without free incision, such as multiple puncture, aspiration, and Auspitz's method of breaking up the inflamed gland by means of a blunt probe introduced through a small incision, I will simply express the opinion that, as a rule, they must be followed by free incision, sooner or later, if the bubo be virulent, and with the probable result of finding that burrowing to a greater or less extent has occurred. It is, of course, desirable to avoid a scar if possible, and in simple bubo, this may sometimes be done, especially by aspiration, and the use of calx sulphurata, but, as a rule, the plan that I have mapped out will be found to yield the best results, and I have yet to see an evil result from it, in a large experience in the treatment of bubo. Opening buboes by caustics is very unsurgical, and not to be considered, for we may resort to local anæsthesia if the patient be nervous, and dreads the cutting. I have found the application of pure carbolic acid to answer this purpose very well, in lieu of the ether or rhigolene spray. In connection with the subject of suppurating bubo, I will take the opportunity of mentioning a method of treatment recommended by Kümmel.* This gentleman uses a dressing of a solution of the bichloride of mercury after the evacuation of a bubo. He extirpates the whole group of glands, as well as those affected. After the removal of the glands, the wound is dried with sponges, drainage tubes are introduced, and the wound sutured throughout its extent, save for a short space at the most dependent portion, which is left free for drainage. The wound is now covered with compresses of gauze saturated with the solution of the bichloride, or with small ash bags, the whole being covered by larger bags. Firm compression is next obtained by a roller bandage, and the dressing is then allowed to remain undisturbed for eight or ten days, at the end of which time it may be renewed, if necessary. The wound is kept quiet by short splints applied to the thigh and pelvis. When ulceration exists, all the infiltrated tissues are scooped away, and the cavity thus formed packed with sand wet with the bichloride solution, over which layers of gauze are applied.

* *Centralblatt für Chirurgie*, Dec 30, 1882.

If the discharge be free, the gauze is changed as required, and the sand again wet with the mercuric solution. Good results are claimed for this plan by Kümmel, and he states that if no ulceration has occurred, he obtains union by first intention, and where an ulcer has resulted, he claims that granulation is rapid, and suppuration slight. I have had no opportunity as yet to try this method, and am hardly prepared to express an opinion as to its merits, but as regards simplicity, I think that it hardly compares with the method which I have described. I should hardly be willing to suture the cut edges after the incision of a bubo, which may present no virulent characters when first opened, but which may subsequently assume the characters of chancroid, and perhaps burrow quite extensively. The open treatment is devoid of these dangers, especially if the edges be thoroughly removed. There are no foci for auto-infection in this plan, as are afforded by the suture tracks in the method of Kümmel.

The management of sinuses and exposed glands requires but little attention, or a few words, at least, will suffice for the consideration of the most valuable measures for their treatment. If a bubo be properly opened, and the undermined and degenerated tissue at its edges thoroughly removed, sinuses are not apt to form, but we will often meet with cases that have been improperly handled, in which sinuses of greater or less number and extent have resulted. When practicable, such sinuses should be thoroughly laid open, and the hard and indurated track cut away. They may sometimes be induced to heal by applications of the solid stick of the nitrate of silver, but they are quite liable to reopen, especially if the patient is cachectic, or moves about a great deal, as the tissue about them is of a very low grade of vitality. When too deep to be freely laid open, or when they are in dangerous proximity to important structures, they may often be induced to granulate from the bottom, by keeping them freely open with sponge tents, and stimulation with caustics. An excellent plan for deep sinuses is that often used for sinuses and fistulæ in other situations, viz: incision of the external opening, and the insertion of a wedge-shaped piece of wax, the base of which is gradually shaved off as the bottom of the cavity granulates. Injections of very hot water, frequently repeated, have also proved quite useful

in my own practice. I usually combine them with the use of pencils or tents of iodoform, and it is this plan which has afforded me the most favorable results. The tent is to be dipped in vaseline, and then inserted into the sinus, care being taken that its bottom is reached. It is then cut off level with the surface, and powdered iodoform and a compress applied over all. I have also used a mixture of iodoform and glycerine, $\mathfrak{J}\text{ii}$ to the ounce, as an injection for sinuses and fistulæ in various situations, and have had excellent results.

The employment of sponge grafting would seem to offer promising results, reasoning from the success reported by those who have used this method for the treatment of ulcers and sinuses of various kinds not dependent upon bubo. The sponge is to be washed in a solution of dilute muriatic acid, and then carbolized with a solution of carbolic acid, 1-20. It should be packed tightly in the sinus, and covered with a compress saturated in carbolic acid. The subsequent discharge, which is usually quite free, is kept from accumulating by the free use of a carbolized solution similar to that used for saturating the sponge. In a short time, it is claimed, granulations will spring up, and the sinus rapidly heal. The method of sponge grafting is also applicable to the treatment of open bubo without sinuses, which may become sluggish and indolent. Sinuses will often take on a healthy action, and heal, under full doses of calx suppurata.

The management of exposed and hyperplastic glands ought to be sufficiently simple. When free glands are found on opening a bubo, they should at once be removed, for, if left, they will, as is well known, act as foreign bodies, and prolong the healing process indefinitely. In many cases, the fingers will suffice for their removal, but if not, Volkmann's spoon or Piffard's curette may be used, or they may be ligated with silver wire, and allowed to separate spontaneously. A plan sometimes used, and which I have myself practiced, is to destroy the glands by repeatedly boring them, so to speak, with a sharp point of pure nitrate of silver, but I will take the present opportunity of deprecating this practice, which is very tedious and painful. In some cases, the glands are not found to be free when the abscess is first opened, and in such instances they should be allowed to remain a few

days, until they become somewhat enlarged and distinctly outlined, at which time they are easily removed.

A very important point in the treatment of open bubo, is the question of constitutional syphilis. If a genital sore be of the mixed variety, the resulting bubo is quite likely to heal very slowly, if at all, unless a course of mercury is administered, and where the patient has had syphilis a certain length of time prior to the occurrence of the bubo, he will also require a full mercurial course. If the attack of syphilis be somewhat remote, or if the patient be greatly debilitated, and suffering from the syphilitic cachexia, an antisyphilitic course of mixed treatment on the one hand, or of small tonic doses of mercury upon the other, will be required. The necessity for antisyphilitic remedies in those rare instances of suppuration following purely syphilitic adenopathies, is too obvious to require more than a mere allusion. In the cases of syphilitic cachexia that I have mentioned, the administration of small tonic doses of the bichloride of mercury will often operate in a remarkable manner, a bubo which has run a very prolonged course healing quite rapidly, and the general health of the patient improving in a marked degree. This tonic action of mercury is hardly appreciated, I think, by the majority of even those who employ mercury quite extensively, in spite of the conclusive experiments of Keyes, and his remarkable results with the hæmatometer.

The treatment of bubo, complicated by gangrene or phagedena, does not differ from that of chaneroid attended by the same complications. Much may be done to prevent these disagreeable and serious complications of bubo, by proper attention to the constitutional condition of the patient. If cachectic or debilitated, he should be put upon tonics and a highly nourishing diet at the outset. There is nothing better as a tonic under such circumstances, than the potassio-tartrate of iron, a remedy highly extolled by Ricord in the treatment of phagedena. As is well known, however, we occasionally meet with cases in which phagedena occurs without any evident cause, and in which we are compelled to recognize an innate predisposition to the affection.

When phagedena or gangrene attack a bubo, the first indication

is the thorough destruction of the diseased surfaces by cauterization. This should not be done in a feeble, halfway manner, or it will be ineffectual, or even injurious, and will require repetition. An anæsthetic should always be given, if the diseased surface is at all extensive, or the work is not apt to be thoroughly done. The caustic used is greatly a matter of choice, providing one be used which is sufficiently powerful to destroy the tissues for the required extent. The Paquelin thermo-cautery, pure bromine, or Ricord's paste, may be used, but I think that the bromine will prove the most satisfactory. After the operation, an antiseptic poultice should be applied, and morphia freely given to alleviate the pain, which is sometimes considerable. When the carbo-sulphuric paste is used, the patient should be kept well under the influence of opium during its application. Opium has been said to have in itself a somewhat specific action in checking phagedena, aside from its mere narcotic effect.

When it is not practicable to cauterize the surfaces, iodoform, carbolic acid, the peroxide of hydrogen, and the potassio-tartrate of iron in a solution of gr. xl. ad \mathfrak{z} s, have each their advocates as local applications. My own preference is for the peroxide of hydrogen, followed by close packing of the cavity with pure iodoform or boracic acid.

Some cases of phagedena, notably the serpiginous form, will progress with greater or less rapidity, in spite of the very best treatment, and others, after the phagedena has been checked and the sore is very nearly healed, will suddenly take on phagedenic action. Simple bubo may do the same thing, in rare instances. I recall one case occurring in the ward of my friend, Dr. Frank W. Merriam, then house-surgeon at the Charity Hospital, in which the bubo was apparently nearly closed, and was granulating finely, when gangrenous phagedena set in, and extended over nearly half the abdomen, before it could be checked. By free stimulation and a nourishing diet, with the local application of the carbo-sulphuric paste, the process was finally stopped, but not until the external oblique muscle had been destroyed for quite a space, and even the next layer of muscles attacked. This case was primarily one of virulent bubo, but had not been phagedenic,

and at the time the phagedena set in was practically a simple bubo in process of granulation.

Vidal claims to have used the pyrogallic acid in the treatment of phagedena with considerable success.* It is claimed to destroy the auto-inoculability of the sore, and to bring about a healthy action in a remarkable manner. It may be used either as an ointment composed of one part of the acid to two of vaseline, to be applied by the surgeon, or as a powder composed of one part of the acid to four of starch, which the patient may apply himself. The pyrogallic acid gives a blackish color to the part, which is of no special signification. I have not yet had the opportunity of trying this treatment in phagedenic bubo, but have used it in several cases of simple and phagedenic chancroid, with good effect.

Chronic and indolent bubo, whether with or without the formation of pus, is usually found in persons of a strumous diathesis, or those who are debilitated or cachectic from some cause. Where suppuration occurs in such cases, the bubo may run an ordinary acute or subacute course, but after the evacuation of the pus, it takes on the characters of a chronic and indolent ulcer. Phagedenic bubo is apt to become chronic, and last indefinitely.

The chief measures of treatment in chronic and indolent bubo, occurring in scrofulous or cachectic subjects, consist in the administration of such remedies as the iodide of iron, cod-liver oil, arsenic, iodoform, or, in short, any of the remedies of known anti-strumous power, as well as such ordinary tonics as quinia, or the mineral acids. A liberal diet, of which milk and cream should form the principal ingredients, and improved hygiene, are usually called for. It is in just such cases as those at present under consideration, that the sulphurated lime will yield the most brilliant results; no better, however, than in strumous affections of other varieties. The maximum dose should be given. As illustrated by a case which I have already cited, absorption of pus may be brought about by this drug, after it has fully formed, and in considerable amount. If the bubo goes on to suppuration in these chronic cases, aspiration may be used in conjunction with the sulphurated lime, and in this way a cure may sometimes be

* *Journal de Médecine et de Chirurgie.*

effected without the necessity of producing a scar by a free incision.

Chronic bubo may remain hard and indolent for a long time, before pus forms, and various local measures are sometimes useful in bringing about resolution without suppuration. The different methods of counter-irritation and pressure already described have numerous advocates. I have mentioned the method of punctate cauterization, in connection with acute bubo, as applicable to the treatment of the form at present under consideration. The modification of this method which appears to me most effectual, consists in drawing a series of intersecting lines over the surface of the tumor with the Paquelin cautery, in the manner often used in inflamed joints. Although not very painful, this method is usually objected to by the patient. Erichsen has found the discutient method of Malplaquet to be very serviceable in chronic and indolent bubo. This consists in the application of a blister of the size of a half-crown to the surface of the enlarged gland, and subsequently dressing the raw surface with lint soaked in a saturated solution of the bichloride of mercury. At the end of two or three hours, a white eschar will have formed, and the lint is then to be removed, and cold dressings applied. Simple blisters are useful also in chronic bubo. They should be repeated sufficiently often to keep the surface raw, and a dressing of the oleate of mercury or blue ointment kept constantly applied. An ointment of equal parts of the oleate of mercury and compound iodine ointment is often effectual in producing resolution without the previous application of a blister. Injections of arsenic have been found useful in strumous and other glandular enlargements in other situations, and would consequently be worthy of trial in chronic bubo.

There is one form of chronic bubo which merits especial attention. This is the variety which accompanies the form of chronic chancroid termed "lupus of the vulva," or in the male, chronic phagedena. This form of bubo is identical in its general characters with the lesion of the genitals, and presents an elevated, hyperplastic mass of tissue of greater or less extent, with an unhealthy pultaceous or worm-eaten appearance of its surface, which secretes an unhealthy, ichorous fluid. The disease extends very

slowly, if at all, after having attained a certain size, the ulceration having meanwhile become continuous in many cases with the genital ulcer. There are apt to be several of the buboes, either distinct, or connected by ulceration. Such cases are very apt to be of a hæmorrhagic nature when they occur in pregnant females. Cases of this severe form of chronic bubo are probably never seen in private practice, but are found only in broken-down hospital cases. They will often defy the best measures of treatment, and finally wear the patient out.

When this form of bubo refuses to yield to the ordinary local treatment and the usual routine system of tonics and dietetics, the occasional application of the actual cautery will sometimes excite a healthy action, with active granulation and repair. As a dressing, iodoform is probably the best substance. An infusion of cinchona bark may also be of service, a piece of lint being saturated with it and laid upon the part, to be subsequently wet sufficiently often to keep it moist. Bumstead recommends the pure persulphate of iron in these cases. Judging from my own experience, the management of the affection is anything but satisfactory.

125 State St., Chicago, March 10, 1883.

MORTALITY OF THE GLOBE.

The *Gazetta Medica*, of Petersburg, makes a curious calculation on the mortality of the terrestrial globe. Europe contains 309,000,000 of inhabitants, Asia 804,000,000, Africa 199,000,000, America 85,000,000 and Australia 4,500,000: total, 1,451,500,000. Taking, as a basis, the average mortality of France, comparatively a moderate proportion, on account of the good hygienic and climatological conditions of that country, there occur annually 35,692,835 deaths in all the terrestrial globe, or 97,790 per day. The number of births are 70 per minute, and 104,800 per day.

Society Reports.

ARTICLE VI.

CHICAGO MEDICAL SOCIETY.

The society held its semi-monthly meeting March 19, 1883, with a very large attendance, Dr. J. H. Hollister, President, in the chair.

Drs. F. S. Tabor; A. R. Reynolds; T. A. Stanley; E. W. Andrews; A. Goldspoon; J. E. Best and F. E. Wadhams were duly elected to full membership.

Dr. N. S. Davis read the paper for the evening, on the subject of acute pneumonia, or lung fever.

During 1882, 782 deaths occurred in Chicago from pneumonia; 42 from broncho-pneumonia; 20 from pleuro-pneumonia; and of this number (844) 122 died in January, 1882. The census reports show that in Boston 681 died from pneumonia in 1882, and that in San Francisco 527 died from pneumonia in the same year. The deaths from pneumonia in New Orleans in 1882 were 203. In San Francisco, the Mongolian race died in the proportion of two to one of the Caucasian race, and in New Orleans, three colored persons to one white died of the disease—accounted for, in a great measure, by unsanitary conditions of the Chinese and colored races. Another destroying agent was the evil effects of alcoholic drinks that those races were addicted to, which increased the death rate.

Dr. Davis then recited a typical case of pneumonia, which resulted in the death of a girl *æt.* fourteen, giving the minute symptoms in detail, which were interesting and curious, as the brain and pleuritic complications were present, and rapidly re-

sulted in death in five days. Another curious case, with prominent brain symptoms, occurred in a girl older than the case just cited. In this case, endo-carditis set in, and she died in five days, with general convulsions. In these two cases, he questioned whether the pneumonia was not the result of the cerebral symptoms, that occurred first by a partial paralyzing of the phrenic nerve, to bring on these sudden changes.

Sources of danger in pneumonia.—The first is in the stage of congestion. This may gradually smother the patient. He cited two cases of this, but it rarely results fatally. A second danger is from hepatization of the lung, which is the result of depletion of blood, and its being solidified in the lung; it is depleted from the circulation. A third critical period is when suppurative degeneration has supervened—this gradually, day by day, exhausts patients. The fourth danger is from rapid reflex changes which may occur, such as “spotted fever.” These erratic symptoms may appear almost epidemically at certain periods or places. Of the remedies, venesection is really the best, and will ease patients if done just before the stage of engorgement or solidification sets in; then follow this with proper remedies to keep the patient relieved, and to favor resolution.

If hepatization has set in before we have seen the patient, do not give alcoholic stimulants, but give good strong tea and coffee, (or theine and caffeine) also give chlorate of potash in gum arabic *puë* ‘*uoiqñjos* [gives doses of quinine, strychnine, camphor or carbonate of ammonia, and the mineral acids.

In the suppurative stage, we should keep up nutrition as best we can, by supporting the patient's strength with tonics and good nourishment.

DISCUSSION.

Dr. R. C. Hamill said that far more pneumonia prevailed in the hilly counties of Indiana than in this city. The lancet was the remedy used fifty years ago, and it was successful then. Within a few days he had had a singular case, which apparently was much improved, and yet died in fifteen minutes after the doctor left. The man died, he thought, from embolism as a complication of the pneumonia.

Dr. G. H. Randall asked Dr. Davis if it was not possible that quinine or opium might cut short the congestive stage of pneumonia, the same as blood-letting would?

Dr. H. A. Johnson thought it probable that the death rate varied in different years; the statistics varied in this. Regarding the peculiar phases of the disease, he could hardly add anything to that which had already been stated in the paper. When hepatization occurs, the process occupies days, and the abstraction, therefore, is gradual, and two or three lbs. at most from hepatization, equal to 16 oz. of blood suddenly taken by bleeding a patient. The continued doses of alcohol in large quantities he thought seemingly resulted favorably in these cases of cardiac asthenia, or in the extreme prostration of pneumonia. He endorsed venesection in the early stages of the disease.

Dr. C. T. Fenn recited a case of a boy, *æt.* fourteen, who died of pneumonia, who had no symptoms of the disease except the sputum that was expectorated. He died on the twenty-second day of his sickness, while taking a dose of medicine, and he died suddenly.

Dr. A. J. Avery had used carbonate of ammonia with a great degree of satisfaction, in cases where the patients had appeared almost at death's door.

Dr. J. H. Hollister thought that in malarial districts, if a person took pneumonia, the disease is more fatal in a given number of cases, than in healthy districts.

Dr. Davis answered Dr. Randall's question, by saying he had tried giving quinine and opium at the onset of the disease; it was well to do so in some cases, but he mentioned two cases where he had first given these remedies, and afterward had to bleed the patients before relief was afforded.

REPORT OF THE COMMITTEE ON BANQUET.

Dr. D. R. Brower, of the committee, wished instructions from the society as to how much money should be expended?

Dr. Davis wanted to know if they were to come together to feast simply, as he did not favor wine.

A vote, taken to ascertain those in favor of a banquet, to be paid for from the society's fund, was lost.

Another vote, taken of those in favor of a banquet, providing 100 were guaranteed, and \$2.00 a plate charged, each paying from his own pocket, was carried.

Dr. C. T. Fenn wished to know the object of the banquet. Was it to become acquainted with each other, and have a social time? if so, he was in favor of it; he himself was not acquainted with fifteen members of the society.

Dr. Avery asked if members could invite their wives to the banquet, and was answered that it would be proper to bring them, as this was done in the National Medical Association banquets. It was upon vote decided that the wives or any friend of the members might be invited, and ladies would be cordially welcome to this banquet, the first ever having been held by the society.

The following members signified their intention of attending the banquet to be held here, at the Grand Pacific Hotel, at the annual meeting, April 2:

A. H. Tagert; E. Bert; W. Blanchard; C. T. Fenn; H. A. Johnson; J. H. Chew; S. J. Avery; R. C. Hamill; E. G. R. Trimble; L. T. Potter; A. H. Cooke and wife; J. F. Todd; N. S. Davis and wife; D. M. Tucker; R. L. Leonard and one other; J. H. Bates and two others; E. Ingals; W. H. Curtis; J. H. Hollister and wife; L. H. Montgomery and wife; J. E. Walton; A. J. Coey; L. J. Loescher.

A communication from the corresponding secretary of the Illinois Microscopical Society to this society was read, inviting this society to join with them in tendering to the American Society of Microscopists a welcome when they hold their annual meeting in this city next August, and for the President to appoint a committee of one or more to act with their committee of arrangements.

Dr. E. Ingals moved that the communication be received and adopted, and that the President appoint the committee when convenient for him to do so.

Dr. W. H. Curtis moved that a committee of five on nomination be appointed to nominate officers for the coming year.

Dr. S. J. Avery moved that the meeting be at 7 o'clock (annual meeting); seconded by Dr. Davis. The business meeting for April 2 will be held at 7 P. M.

The committee of five on nominations consisted of Drs. J. H. Hollister; E. Ingals; N. S. Davis; W. H. Curtis; H. A. Johnson.

The society then adjourned.

L. H. MONTGOMERY, *Secretary*.

The Chicago Medical Society held the Thirty-third Annual Meeting, April 2, 1883, with Dr. J. H. Hollister in the President's chair and Dr. L. H. Montgomery at the Secretary's desk. There was a very large percentage of members present.

Dr. F. E. Waxham read a paper on the "Prevention of Contagious Diseases" and "Our Hospital Accommodations for Children." He held that there is a wide field for earnest labor in the prevention of contagious diseases; children of all classes, conditions and localities are subject to them. The unnecessary and avoidable waste of life due to this cause is great indeed, and, by the systematic use of disinfectants, antiseptics and isolation, we certainly possess the means of controlling these maladies, the same as by vaccination in preventing small-pox; although for scarlet fever and other contagious diseases we have, as yet, no specific preventive; but by the above means and carbolized oil, or carbolized vaseline, applied direct to their little bodies, we ought to control these diseases, and much can be gained by the use of a five per cent. solution of carbolic acid with the hand or steam atomizer; and, to be effectual, it should be used as often as every two or three hours in the room and about the bed of the patient. Measles and scarlet fever can thus be prevented from spreading. and for whooping-cough isolation is the most important measure, Cases and illustrations under the writer's care were given to substantiate these facts. Among the poorer class of tenants, who are overcrowded, contagious diseases occur with the greatest frequency, and are most severe and fatal. It is for this class especially in behalf of which the paper was written, and two methods are practicable to protect them, viz.: Either by the erection of hospitals for the sick, or asylums for the well, as the exposure incident to the removal of a child suffering from scarlet fever, measles, or diphtheria may be such as to induce a

fatal result. If a hospital or asylum were erected here exclusively for children, hundreds of lives might be saved annually. In this city, which has become a great medical center, with our magnificent hospitals, the little children have been overlooked. This is not so in New York and some other of the Eastern cities. Forty-five thousand children are treated annually in the hospitals of New York City. The Thomas Wilson Sanitarium for children has been founded at a cost of \$500,000 in Baltimore, and with all the wealth and generosity of Chicago, but a single hospital exclusively for children may be found—the Maurice Porter Hospital of the North Side, containing twelve beds. The Home for the Friendless and Foundlings' Home have ward accommodations simply for the inmates, and are not accessible to outside patients. How different, if there existed here a complete and exclusive hospital for children, with wards for the different diseases of which they may become afflicted! Besides, it would be a refuge for the unexposed. The little hospital of the North Side mentioned in the paper is inadequate to the demands and needs of this great city. Here is an opportunity for the philanthropist to make his name immortal, or for the Chicago Medical Society's influence—inducing legislation, donations and bequests. It is the proper body to interest itself, and soon we would see hospital accommodations for the little children worthy the enterprise, wealth and generosity of Chicago.

The author moved, therefore, that a committee of three be appointed to agitate this subject. Carried; to be appointed at a future meeting.

The annual report of the Secretary was read, which, in brief, summarized, is as follows: During the year twenty meetings for scientific purposes have been held; 450 members attended nineteen of the meetings and 120 visitors, being a total of 570, or an average of thirty persons. The Society admitted thirty-four physicians into full membership; the accurate and corrected membership list now is 210. Postal card announcements sent out for each meeting were 200, or about 4,200 for the entire year. The list of papers presented during the year with authors was thirty-eight, many of them being of unusual interest

learned and comprehensive. No deaths occurred and four marriages, which is probably the best part of this report.

The report closed with the following suggestions for future consideration :

First. That regarding the amendment to the constitution proposed at the second preceding meeting (by myself), wherein provision for a second Vice-president should be made, for the reason set forth at the time it was offered.

Second. That no member be permitted to present more than two new candidates during a year.

Third. That a Publication Committee, consisting of three members, be appointed by the President, and a given number of copies of our constitution and by-laws be published in pamphlet form, with the list of membership and other information contained, to supply each member with a copy.

Fourth. That a " Professional Insurance " be established for beneficiary purposes out of the funds in the treasury. We then have the double advantage and honor of belonging to a medical society the peer of any west of New York, as well as this relief fund, at a mere nominal outlay for a member's death.

In closing, the report stated that never had the Society been in so prosperous a condition, and for this result much honor was due the worthy President.

Dr. E. Ingals moved that the Secretary's report be received and adopted. Carried unanimously. And that a committee of three be appointed to consider it. Also carried, resulting in Dr. E. Ingals, Dr. D. W. Graham and Dr. R. G. Bogue constituting the committee.

The Treasurer, Dr. E. F. Ingals, presented his report for the fiscal year to date:

Dr.		
April 13, 1892, to amount in Treasury,	\$339 07	
" 13 to July 1, 1892, Collections,	25 00	
July 1st to January 2, 1893, Collections	83 00	
January 2, 1893 to April 2, 1893, Collections,	230 00	
Cr.		\$677 07
April 13th to July 1, 1892, by bills paid,		\$ 68 50
July 1st to January 2, 1893, by bills paid,		24 25
January 2d to April 2, 1893, by bills paid,		36 50
		<hr/>
		\$129 25
Leaving a balance of \$547.82 in the treasury.		

Dr. E. Ingals moved that the treasurer's report be received, and that an auditing committee be appointed consisting of two. Carried, resulting in Dr. C. T. Fenn and the Secretary elect being appointed.

The committee on nominations reported for the current year, as follows: For President, Dr. D. W. Graham; Vice-President, Dr. R. N. Isham; Secretary, Dr. L. H. Montgomery; Treasurer, Dr. E. F. Ingals.

Dr. T. W. Miller thought other nominations should be made, as we probably would have a second Vice-President. It was so ordered, and upon balloting a number of times, the following officers were elected for the coming year: Dr. D. W. Graham, President; Dr. R. G. Bogue, first Vice-President; Dr. R. Park, second Vice-President; Dr. L. H. Montgomery, Secretary; Dr. E. F. Ingals, Treasurer. Doctors G. C. Paoli, C. T. Fenn and D. R. Brower to constitute the Committee on Membership and miscellaneous business.

Dr. Hollister, the retiring President, made some happy remarks, and dwelt upon the future for us. He appointed Dr. E. F. Ingals to escort the newly elected President to the chair. Dr. Graham, upon accepting the Presidency, thanked those present for this honor.

Dr. Paoli moved that the retiring President receive a vote of thanks for the impartial manner and efficient services rendered. Unanimously carried.

Dr. E. Ingals moved that \$50.00 be presented to Mr. Drake for courtesy in using the parlors of the Grand Pacific hotel. Carried unanimously.

Dr. E. Ingals also moved that the Secretary, Dr. L. H. Montgomery be presented, as an honorarium or testimonial for services, the sum of \$25.00. Carried unanimously.

The society then adjourned.

L. H. M.

At a called meeting of the Ogle County Medical Society, held in the city of Oregon, March 7th, 1883, the following preamble and resolutions were unanimously adopted :

WHEREAS, The Ogle County Medical Society is again called upon to register the loss of one of its oldest and most honored members, by the death of Dr. Elias S. Potter ; the physicians of Ogle county lose a worthy colleague who has labored and dwelt among us for more than forty years. He made his home in the city of Oregon in 1844, and acquired a very large practice, enjoying the love and confidence of his patients and friends as a most estimable man. In the midst of his professional duties, and in the very act of visiting the sick, he was called suddenly away. The Ogle County Medical Society give voice to the unanimous sentiment of the profession in the expression of their sorrow at the sudden demise of Dr. Potter and their deep sympathy with the bereaved family ; therefore,

Resolved, That in the death of Dr. Potter the medical profession of Ogle County has lost one of its most honorable, upright and most respected brothers, whose judgment, kindness and genuine congeniality we have always esteemed and admired.

Resolved, That we sincerely mourn and deplore the loss of our brother whose gentlemanly conduct, generosity of heart, and professional ability were the characteristics of his life.

Resolved, That in the labor and character of our brother, we have an example of industry, manliness and usefulness, in a high degree worthy and commendable our imitation.

Resolved, That we tender the bereaved family of the deceased our heart-felt sympathy and condolence in this, their sad bereavement and affliction.

Resolved, That a copy of these resolutions of respect and condolence be sent to the family, also to the Ogle County papers for publication, and to the *Chicago Medical Journal and Examiner*.

DRS. H. A. MIX, L. C. HORMELL, } Committee.
L. S. HALL, W. T. SPEAKER, }

Reviews and Book Notices.

ARTICLE VII.—A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By JAMES NEVINS HYDE, A.M., M.D. Philadelphia: Henry C. Lea's Son & Co. 1883.

The earliest record of any skin disease that we can find seems to be in the description of leprosy in the Old Testament, Leviticus 13 and 14, where the disease is described with some minuteness as to its characteristics and diagnosis, with instructions as to the purification and separation of those afflicted, though the cure was apparently as impossible, in those early times, as at the present.

In the writings of Hippocrates, also, dating back at least twenty-two hundred years, may be found descriptions of several forms of skin diseases, described with accuracy, and, according to the accounts, successfully treated.

From those old days to the present, to what varieties of treatment have these diseases been subjected, influenced by the thousand and one ever varying theories of the cause of disease, the solidism of one century and the humoralism of another!

Within the last thirty years, however, the advance in the study and treatment of skin diseases has been most marked, fully keeping up with what has been done in other departments of medical science. Without wishing to depreciate what has been done by the English and French schools, it is safe to say that the profession is indebted to Hebra, of Vienna, more than to any one else, for bringing our knowledge up to some definiteness and certainty. Beginning, like a true German skeptic, by not accepting any of the older theories and practice till he had subjected them to the test of his own experience, he began by investigations

de novo, and from the almost unlimited amount of material at his disposal in the hospitals of Vienna, brought the science of dermatology to a higher plane than it had ever reached before. Thousands of pupils have been attracted to Vienna, to sit at the feet of the great master, and the strong impetus given to the study of skin diseases has shown itself in the increased number of observers all over the world.

It is to give to the profession at large the benefit of what these workers have accomplished, and to show what has been done up to the present time, that this work has been undertaken, and most admirably has it accomplished its object. In this book the practitioner, busy or otherwise, may find what we really know about skin diseases up to this year of our Lord 1883, and withal submitted to the judgment of a man of study and experience in this department of medical science.

While there is no branch of medical study which is so impossible to learn from books alone as dermatology, yet the student who wishes to correct and confirm his observations of skin diseases; to supplement and arrange what he has learned from the actual observation of cases, will find no better guide than the present volume.

If we were to instance any chapters which seem to us particularly good, we should mention that on eczema. In that, as, in fact, all through the book, is taught the great lesson, to which sufficient prominence has never, we think, been given in works on general or special practice, that the successful practitioner must treat, not the disease, as a disease, but the patient as he stands before him. He must prescribe for the wants of just that particular individual who consults him, taking into consideration what his ancestors gave him, and what his present condition is as to habits, employments, and all his surroundings.

This same remark would apply to the chapter on acne, a skin disease, in the proper treatment of which the skin is about the last thing to take into consideration. Acne is a disease of defective innervation, and whatever has produced this influence on the nerves is the main thing to be treated, all other treatment being only slightly adjuvant.

In the chapters on syphilis will be found a good *résumé* of

the existing state of knowledge on this interesting subject, and the directions for treatment are judicious and comprehensive. The importance of attending to the general health; of out-door exercise; generous diet; iron and proper tonics, as well as the routine mercurial treatment, is very properly insisted on.

On the whole, the work seems to us to be a clear and concise statement of what the profession wants to know, and it will prove a most valuable guide to the thousand students who annually go out from Chicago, to make their professional career in the great Northwest.

C. G. S.

ARTICLE VIII. CONTRIBUTIONS TO ORTHOPEDIC SURGERY.

Including Observations on the Treatment of the Hip, Knee and Ankle Joints by a New and Simple Method of Extension. And Lectures on Club Foot, by Jas. C. Hutchinson, M. D. New York. G. P. Putnam's Sons.

The author states at the outset that all the morbid conditions of the joints are, as a rule, essentially chronic, and characterizes attempts to describe the symptoms indicating distinct pathological states of the individual structures of the joints as mere pathological refinement. He abandons all apparatus in coxalgia except the crutch and elevated shoe on the unaffected side. Extension is secured by the weight of the limb. He maintains that sufficient immobility is secured by the reflex contraction of the periarticular muscles.

In the treatment of knee-joint disease, the author uses the same plan with the addition of compression by a splint consisting of seven layers of shellaced muslin, which is laid upon the knee while extended.

In the diseased ankle joint a plaster splint is recommended, applied during extension, and renewed from time to time while using the elevated shoe and crutches. The author claims this treatment to possess advantages over that commonly employed in the management of chronic inflammation of the joints of the lower extremities. In that the surgeon is saved the trouble and annoyance of applying and carefully watching the instruments in ordinary use to see that proper extension is kept up, and undue

pressure prevented, while the patient's comfort is greatly promoted by dispensing with adhesive plasters, which irritate the skin, and require removal from time to time, and by discarding the perineal band in hip disease. The spasmodic contraction of the periarticular muscles is overcome by the gentle physiological extension produced by the weight of the limb for several hours each day, while forcible extension by weight and pulley irritates the muscles to resistance and contraction, which must be overcome by main force.

The inexpensiveness of the apparatus, which is easy of construction by any ordinary mechanic, is a matter of no small importance.

In the five succeeding lectures on club foot, the author, after a short historical sketch of the rise and progress of orthopedic surgery, takes up each of the four varieties of talipes and their four compound forms in anatomical and surgical detail.

While there is nothing particularly new, yet all the information necessary to the subject is developed in attractive and compact form.

W. L. D.

ARTICLE IX.—VARIOLA. A series of Twenty-one Heliotype Plates, Illustrating the Progressive Stages of the Eruption. Boston: Samuel A. Powers, 1882. Price \$3.00

This is a book of beautiful plates, made and arranged under the direction of Mr. Samuel A. Powers, Superintendent of the Small-pox Hospital, Boston.

The plates represent the appearance of Variola at the different stages of the eruption. The first sixteen pictures show its appearance on the same patient from the third to the fourteenth day, when it began to disappear. The remaining six pictures were taken from different patients in same hospital to show some special feature in the disease.

The book will help out the work of diagnosis in many cases.

Mr. David F. Hicks, of Hyde Park, Ills., is the agent for its sale.

D. R. B.

ARTICLE X.—A TREATISE ON DIPHTHERIA AND CROUP.

By Charles J. Lewis, M. D., Alumnus of Rush Medical College, etc., Chicago. Published by Clark & Edwards, 1883. Price \$1.00.

This is an admirable little monograph, full of practical suggestion for the management of these formidable diseases, according to the author's pathology, best expressed by the following extracts from his preface: "Having felt for several years the pressing need of establishing a close relation between a generally successful treatment of diphtheria and croup with antiphlogistics and eliminants, and a theory of the nature of these diseases that was consistent with such management, is my plea for bringing out this treatise.

"M. Bretonneau regarded diphtheria as an inflammatory disease, and treated it as such. His views of the essential nature of the disease were correct; but his methods of cure are so crude, so inadequate, in not giving due prominence to eliminants, that his antiphlogistic treatment was, before his death, abandoned as a failure. This failure would not have been attained had he selected anti-inflammatory and eliminatory drugs, with due regard to their physical action. I have given due prominence to the action of both these classes of medicines. I am not conscious of a diphtheria and croup poison—a contagium vivum—hence, the claim of contagion and of germ origin, is unproven."

The method of treatment proposed is ingenious, plausible, and we have reason to believe, has been, in the Doctor's hands, very successful.

We take pleasure in commending the book to the favorable attention of physicians.

D. R. B.

THE will of Sir Thomas Watson has been proved. The personalty alone amounts to more than £164,000. A modest fortune for a life of distinguished professional services.

Editorial.

STATE AND INTER-STATE MEDICINE.

IN our issue of last month, we published the interesting address of Prof. Moses Gunn, of Rush Medical College, delivered at the late Commencement exercises of that institution. Our readers have already enjoyed the opportunity of perusing its pages, which set forth in the clearest and most comprehensive manner the ethical questions which have lately been engaging the attention of medical men. It is unnecessary to go over again the ground there transversed. This exposition of the views of a veteran instructor and practitioner, holding, on the one hand, the conservative opinions on the subject of the code entertained for a generation by the best representatives of regular medicine in the country, and, on the other, acknowledging that respect for and deference to the existing laws of the State which are the requisites of all good citizenship, has already attracted the attention it merits.

The prominence, however, thus given to the *status* and functions of the Illinois State Board of Health, has suggested a view of the results of its operations which is not without further interest. We remark, in passing, that we entertain for the gentlemen composing this honorable body, no less respect than that distinctly expressed by the distinguished author of the address to which we have referred.

It is claimed by them, and we doubt not justly, that in consequence of their organization and operations, a large number of irregular practitioners have been driven beyond the borders of this State. We do not understand that it is claimed that all such have been thus removed, for even a superficial examination of the daily papers of this city discloses the advertisements of a number of such irregular practitioners, some of whom, we under-

stand, have begun their profitable business in this line, since the passage of the law which, by its provisions, released from its penalties all those who by ten years of irregular practice had secured exemption.

Granting, however, that the operation of the law and the activities of the Board have driven beyond the borders of this State a horde of irregular practitioners, the questions naturally arise, where are they now and what are they doing? If all of the several States of the Union had similar Health Boards with powers equal to those conferred on the Illinois body, the grand result might be that of the equal operation of a national law, affecting all the States of the Union to the same extent. As the matter stands at present, it is well known that there are many States of the Union not provided with Boards of Health. If there are those who wish to know whether quackery and charlatanism are prevalent in such political divisions of the country, their desire may be readily satisfied. We refer any enquirers on this point to the late address of the President of the Missouri State Medical Society, whose revelations were made the theme of some very pertinent editorial comments in a recent number of the *N. Y. Medical Record*. A reference to the original pages of this address, however, will demonstrate clearly that even extravagant language would fail to properly characterize the abject ignorance, the depravity and even the villainy of the impostors who have settled upon the unfortunate people of the State of Missouri in a swarm worse than that of the traditional Egyptian locusts. This may prove a startling and fearful exception to the rule, but it certainly suggests to the liberal-minded to ask to what extent the unequal operation of law is working a serious injury to some parties of this country. However much the present tariff may be claimed as a strictly American system of protection, it is firmly established that free-trade is to be the rule forever in at least all commerce between the States. The necessity for the equal operation of law upon all citizens in all districts is nowhere better recognized than in Illinois, which, by statute, has prohibited special legislation for its own citizens. That which is good and useful for one part of the country should not be less desirable for all others.

If the operation of State laws of the kind to which we refer is really working an injury to our sister States, one naturally inquires, what is the remedy? If it be responded, the several States should protect themselves by organizing their own Board of Health, the improbability, not to say impossibility, of the passage of laws with exactly similar provisions for regulating practice in so many differently organized political divisions of the country, becomes at once apparent. Shall we, in despair of such an issue, proceed at once to destroy the effectiveness of our own law, with a magnanimity and unselfishness unequaled save in the pages of the *Light of Asia*? Surely there is a broader view to be taken of the whole matter.

What has been actually attempted and accomplished is admittedly imperfect in result, limited as to scope, unequal in action and open in many respects to adverse criticism. With such limited powers as it possessed, we are willing to admit that the Illinois Board entered upon its task with enthusiasm and devoted itself to its work with energy. But the need for something better and broader is apparent. Either the national congress must pass such general laws for the regulation of the practice of medicine in the United States as shall operate equally in all parts of the country, or its regularly educated physicians must take steps to protect themselves. As a rule they have fared badly when they have asked protection of politicians, law-makers and legislators. Their best and broadest results have been accomplished either in the absence of all laws specially affecting them or in face of the worst. Their best representatives have constituted a body of men the peers of the profession in any country of the world where the most stringent regulations limit admission to their ranks and govern all who are admitted. Their worst representatives are not the fruit but the by-products of their best efforts.

After all, the system is part and parcel of one huge crudity of magnificent resources and inferior methods. This is a country whose laws are so defective that it is actually possible for a contingency to arise in which there would be a doubt as to who is the chief magistrate of the nation. Can any wonder, then, that there are gross irregularities in all legislation relating to the practice of medicine?

Translations from Foreign Exchanges.

BY A. LAGORIO, M. D.

DERMOID CYST OF THE OVARY, OPEN BY SUPPURATION THROUGH THE ABDOMINAL WALL.—CURE.

The following case is reported by Dr. A. Turretta, of Trapani: Mrs. E. L., aged 27, menstruated at 15, had three children with normal pregnancies. During the last pregnancy noticed, the abdomen, greater than previous times, had a conoid form protruding forward. After labor, the abdomen remained more voluminous than ordinary, and since then menstruation ceased. When admitted to the hospital she was pale, amaciated and had an extremely suffering aspect, with dyspnoea. The circumference of the abdomen around the umbilicus was 84 centim.; four inches below, 92 centim. The pubo-umbilical distance, 95 cent.; umbilico-xiphoideal, 16 cent. Skin is distended and red. Palpation is tender and painful in the portion of the abdomen below the umbilicus. The hand reveals an exaggerated heat, with an elastic softness, and a sensation of a superficial abscess. Vagina normal, the neck of the uterus slightly flexed to the right. An incision 4 cent. long was made 8 cent. below the umbilicus, and with an impetus was discharged about six liters of a purulent, viscous liquid of a specific gravity of 1,017, rich in purulent corpuscles and cholesterin crystals. The cavity was washed with carbolized water, and a large drainage tube placed in position. After 27 days, there was some elevation of the temperature, with rigors which were repeated the following day; the secretions changed in color and odor in such a manner as to arouse the suspicion of ichoræmia. The wound and cavity were immediately

washed with a solution of pernanganate of potassa, and large doses of quinine administered internally. The rigors ceased, and in a week the temperature became normal, and the patient quickly improved. The uterus remained a little ante-flexed, but no longer painful. The quantity of the discharge diminished considerably, so that the patient, thinking herself cured, begged to leave the hospital after ninety days. A drainage tube was left in the aperture, and the patient advised to continue detergent injections. Three months afterwards, the patient again called at the hospital, saying that for some days she had been tormented with fever, and had with surprise observed the escape from the wound of long hairs with offensive pus. The cavity was examined, and from the aperture escaped a moderate amount of yellow liquid, offensive in odor, composed of pus, fat, etc., with a quantity of long, hard, black hairs, resembling those of the scalp of the patient. This revealed the essential character of a compound cyst; no longer a simple calloid cyst, but combined with another of a dermoid nature. The escape of hairs and liquid continued for about 40 days. Some injections of tincture of iodine were also used. The patient soon gained in strength, and after 70 days the encysted mass constituted only a tumor the size of a lemon, and a fistulous opening. The patient was discharged almost cured. The menstruation reappeared and continued with a perfect regularity.

Dr. Turretta has never noticed in surgical literature such a typical case, of a cure of a compound cyst, by spontaneous suppuration, opened through the abdominal walls, as the one he has reported. Five years have now elapsed since her discharge from the hospital, and he has found the same condition of the mural residual tumor, of the same volume, and the same small fistulous sinus which the patient keeps open with great care with a small elastic tube, fearing that total closure may bring back the old disease.

It is evident that such a fortunate result was due to the suppurative inflammation developed in the tumor. Twisting of the pedicle is sometimes a cause of inflammation of the cyst. But the torsion may be partial so as to produce only an incomplete circulatory strangulation; or may be complete as to produce a

complete strangulation, intercepting the arterial circulation, producing stasis in the venous capillaries, and therefore hæmorrhage, thrombosis, gangrene of the cystic walls and ichorrhæmia. Traumatic causes are the most common for inflammation of the ovarian cyst. This patient denied having received any blow or wound in the abdomen; but being a farmer was obliged several times to lift and carry around the body heavy objects, which, according to the author's mind, constituted a mechanical stimulus capable, especially if repeated and associated with atmospheric bad surroundings, of producing an inflammatory action. The sudden and strong contracting of the abdominal muscles constituted by themselves a trauma, which sometimes has produced a rupture of the cyst. The peritonitis must have been very limited. The general phenomena were due to the phlegmonous inflammation and to the absorption of the purulent contents.

The fortunate spontaneous cures of the ovarian cysts, although rare, are not entirely new. Broca, referring to statistics of Chereau, says that of twelve cases of cysts, ruptured in the intestine, in the vagina, or through the abdominal walls, five were cured, five returned, and in two death resulted (*Traité de tumeurs*, Paris, 1869, vol. 11, p. 147). But it seems that they were simply serous cysts, as Broca, at p. 146, op. cit., speaking of the possible accidents of cysts, and of adhesions of the internal parietes, says: "*Terminaison fort rare qui n'est possible que dans les kystes séreux.*" And on page 147 speaking of the curative treatment of the dermoid cysts, adds: "*La course de ces kystes étant très réfractaire à l'inflammation adhésive, et la récidive étant imminente toutes les fois qu'une partie même très limitée de cette paroi reste en place au fond du kyste,*" etc.

Koeberlé, Clay, Baker-Brown, Perruzzi, Spencer-Wells, etc., are unanimous in the opinion that only unilocular cysts with serous contents may, in rare cases, recover without ovariectomy; and that the multilocular, the colloid, the compound and the dermoid have no other resource but the radical operation.—*Giornale Internazionale delle Scienze Mediche*.

THE TREATMENT OF TYPHOID FEVER.

M. Jaccoud explains his treatment of typhoid fever used during the past sixteen years. Two essential characters are present in typhoid fever: The *adynamia*, produced by the typhoid infection, and the febrile consumption; *calorification*, which interferes in the functions of the heart and the brain. From this, two indications are given, one to sustain the strength of the organism, the other consists in the necessity of combating the fever. For the *adynamia* he advises wine, bouillon and milk; alcoholics (30 to 80 grammes a day), and 3 to 4 grains of extract of quinquina in the 24 hours. For the fever heat he advises 4, 6, 8 or 10 lotions a day of aromatic vinegar. The effect is certain. If the symptoms persist and become worse, he uses quinine in the form of bromhydrate and salicylic acid. He gives the quinine for two or three consecutive days. The first day he gives 1 gram, $\frac{1}{2}$ to 2 grams the second, and third day diminishes the dose to 50 centigrams. The dose is given within 30 minutes; in the morning to obtain the effect in the evening; or in evening to have the effect in the morning. Prefers the salicylic acid if the patient shows no alcoholism, nor weakness of the heart, nor any trouble within the kidneys or brain. If complications about the lungs appear, he applies dry cups on the stomach, and on the superior members.

He has treated in 16 years 655 cases of typhoid fever, and has lost 71 patients; 11 per cent.

To show his excellent results, and to compare it with that of others, he has collected 80,000 cases, and has found that the mortality is 19 to 20 per cent.

He protests against the excessive therapeutical methods that have been used during later years.—*Lyon Médical*.

PAST PARTUM HÆMORRHAGE TREATED WITH HYPODERMIC INJECTIONS OF ERGOTININE.

At a meeting of the Académie de Médecine, Dr. Charbazian read a paper on the subject. Ergotinine is the alkaloid of ergot; it is insoluble in water, but soluble in alcohol and chloroform.

A pound of powder of ergot contains 18 centigrams of ergotinine. The indication for its use is when the post partum hæmorrhage is due to the contraction of the uterus. The dose for a single hypodermic injection is 5 to 6 drops of a solution containing 4 milligrams of ergotinine to each twenty drops of the liquid. The injection can be repeated if necessary, but never more than twenty drops. More energetic and permanent contraction of the uterus is produced by it, and its action is more rapid than with the ergotin (which is nothing but an extract of ergot), and it neither produces abscess nor induration. Ergotinine is to ergotin what morphine is to the thebaic extract. The uterine contraction appears within two to five minutes. Could not say how long they last.—*Annales de Gynécologie*.

WEISS—THE MICROBIUM OF BLENNORRHAGIC PUS.

The presence of microbes in blennorrhagic pus has been indicated several times. A recent work of the author confirms the studies already made on this subject. The examined pus was taken from men and women with all the necessary precautions. In all cases the microscope revealed, between the pus globules and the epithelial elements, little bodies, some isolated, some united two by two, or forming little groups, and disposed in a special manner, and always with a characteristic aspect. He has examined the pus of thirty-two patients, and every time has discovered these parasitic forms. As a comparison, he has examined the pus of a single metritis, balanoposthitis, chancre or chancroid, leucorrhœa, etc., etc., and has never found the special element, which he considers as characteristic of blennorrhagia. For treatment, he insists upon the parasitic action of the permanganate of potassium. In fact, in all cases of vaginal blennorrhagia treated, in the injection of a solution of 25 centigr. per 1,000, he has noticed a rigid and notable diminution of the microbes; at the same time they lost their zone of involucrum, and were modified so as to indicate their alteration, or their destruction, by the application of the substance.—*Ann. de Dermat.*

QUASSINE AND ITS USES.

Quassine is the active principle of *quassia amara*. It is amorphous or crystallized. Both forms produce the same effects ; the former is preferable at a dose of four to ten cent. gr. a day ; of the latter a dose above two cent. gr. produces toxic effects. In a healthy man quassine produces during the first days a rapid increase of the appetite, a more complete digestion of aliments and a rapid development of strength. At a dose of four cent. gr. before meals, it increases the alvine discharges, and therefore becomes useful in constipation caused by a feebleness of the muscular tunic of the intestines. This property is a precious one, for it permits, in many cases, to substitute the quassine for purgatives, which frequently render the constipation invincible, without speaking of the returns which most often are produced after their administration. At the same dose of four cent. before meals, quassine has been given to patients having three or four diarrhoeal discharges within twenty-four hours. After eight days of treatment the discharge became normal. Other experiments have proven that quassine has a most pronounced diuretic effect ; that it increases the secretion of the salivary glands, of the fauces, of the kidneys, and also of the mammary glands. Quassine is a bitter tonic, aperient and stomachic. It must not be administered during the acute stages of diseases, but in the general debility, the atonic dyspepsia, the anorexia, the chlorosis, the spasmodic vomiting, the long and difficult convalescence, especially of fevers. -*Gazette des Hôpitaux*.

OXIDE OF ZINC POISONING.

At a meeting of the *Société de Médecine de Nancy*, Dr. Spillman communicated his observation of a patient who presented toxic symptoms after the ingestion of a certain quantity of powdered oxide of zinc. N., aged 23 years, was affected with a syphilitic chancre. He was ordered Ricord's pills and an application to the sore of powdered oxide of zinc. The patient, a German, not understanding the directions, when at home drank about ten grains of the powdered oxide of zinc in a glass full of water. After a few moments he was taken with

severe pain across the stomach, fainted and fell into a collapse. The druggist who furnished the powder gave to the patient whites of eggs. The doctor saw the patient several hours after the accident; he had cold extremities, pulse small, and continued vomiting. The vomiting persisted for over forty-eight hours, in spite of the means employed (ice, opium, etc.). It was evident that the powdered oxide of zinc had been transformed into a chloride of zinc. An adult secretes about 13,000 to 15,000 gram. of gastric juice daily, which contains four to five grams of hydrochloric acid per 1,000. The albumen, taken in time and in large quantity, had transformed the zinc salt into an insoluble albuminate.—*Revue Médicale de l'est.*

LARYNGEAL SPASM IN A CASE OF LOCOMOTOR ATAXY. *

The patient, a mariner fifty-seven years of age, contracted syphilis eight years ago. He worked a good deal in cold weather, and suffered from pains in the lower extremities. Gradually the pains increased to a certain intensity, but they disappeared after two months' treatment. Three years ago, he suddenly had laryngeal spasms, with symptoms of locomotor ataxy. These spasms became frequent, and they were followed by intense pains in the limbs. There was now paralysis of the motors of the eye, with dilatation of the pupils and diplopia of the right side. The troubles in the lower limbs were doubtless of a tabetic character. There was spasmodic constriction of the larynx, but he retains consciousness. Sometimes speaking will produce these attacks, and the inferior vocal cords were influenced. There was vomiting, but no gastric pains.—*Lyon Médicale.*

SOME POINTS IN GENERATION.

Pflueger, the well-known physiologist, has experimented with the eggs and the sperm of the frog. The eggs were obtained from four different places, and also the sperm. Pflueger finds that neither climate, or water, or nutrition, is of any importance as respects the question of sex. He further calls the attention of physiologists to the fact that there is hermaphroditism in the frog until the second year, and that this hermaphroditism is more or less prolonged in different localities. He says, further, that

diluted semen acts nearly as well as the concentrated, and that the sex in the frog is generally predetermined.—*St. Petersburg Med. Wochenschrift.*

DIPHTHERIA TREATED BY HOMŒOPATHS.

By request of the homœopathic physicians at St. Petersburg, the Russian government gave these gentlemen a fair trial in all the hospitals of that city. They promised to prove that their treatment of diphtheria was far more successful than that of regular physicians. The commission nominated to supervise the results consisted of government physicians, and in large part of other government officials, who were independent of any outside influence. The result was disastrous for the homœopathic physicians, three-fourths of the children having died under their treatment. The commission, therefore, was forced to declare that after two months' trial, they have found the homœopathic treatment of diphtheria to be a "dangerous fraud."—*Wradshebrija Wedomosti.*

In the monthly report for March of the Bureau of Vital Statistics, we notice the following items:

Total number deaths, 968. Children under five years of age, 483. Greatest number of deaths from phthisis, 94; diphtheria, 49; scarlet fever, 35; pneumonia, 70; infantile convulsions, 86; infantile marasmus, 13; bronchitis, 52; typhoid fever, 20; inanition, 35; by violence, 49; small pox, 9; 1,727 deaths in 1,000. Deaths in March, 1881, 876; March, 1882, 1271; February, 1883, 859.

CHIARI, the pathologist, who has just been made professor at Prague, is a man thirty years old who has already made over 8000 post-mortem examinations. At a recent supper given in his honor, one of the speakers said he could not wish for greater happiness than that of being post-mortemed—if one may use the expression—by his friend Chiari.—*Medical and Surgical Reporter.*

Selections.

WHAT ARE THE CONDITIONS THAT JUSTIFY OÖPHORECTOMY?

By CLINTON CUSHING, M. D. (Read before the S. F. Obstetrical Society.)

By the term oöphorectomy is meant the removal of the ovaries for disease other than that of ovarian tumors, which increase rapidly, and tend to destroy life on account of their size. Ten years seem a short time for the history of an operation; yet this period includes all that is known of an operation that is being performed now in nearly all parts of the civilized world.

The original operators—Hegar of Germany, Lawson Tait, of England, and Dr. Robert Battey, of America—are still living; and the history of this procedure is still so fresh, and is doubtless so familiar to you all, that its repetition is unnecessary.

Like all new and radical operations, however, it has met with opposition and criticism from many members of the profession, and its position as a legitimate procedure is as yet not fully admitted; but as the roll of successful cases steadily grows larger, the opponents are gradually giving way, and the prospects are good that it will soon be recognized as the best if not the only means of curing a class of cases that have heretofore been looked upon as the opprobria of the profession.

The opposition to oöphorectomy is indeed slight as compared with the bitter war made upon the ovariatomists of forty years ago. At that time many leading professional men in Philadelphia called Dr. Washington Atlee a butcher, and little short of a murderer; and refused not only to be present at, or to countenance his operations for the removal of ovarian tumors, but refused to meet him in consultation in any case—but, as all know,

he lived to see his name famous, and the operation endorsed even by his enemies.

A later writer says : " The history of ovariectomy ought to teach the surgery of the future humility, as its first lesson ; and of the past, it must never be forgotten that whatever of defeat or obloquy it encountered, was due to it."

This older surgery was one of traditions. Its limits were defined by authority, its methods were settled by command, and had no place within its borders for whatever violated its dogmas. One of its most cherished dogmas was the sanctity of the peritoneum, and the inviolability of the great cavities. Whatever the older surgery taught about these things was tradition, not fact, and tradition it remained until the creation of a new science and art called ovariectomy. Nothing can be stronger than the contrast between the present attitude of general surgery toward ovariectomy, and that held twenty-five years ago. Whatever, at the present day, is proposed or attempted in abdominal and pelvic surgery is received with plaudits, and finds a score of hands to essay its difficulties. This influence is really not limited to abdominal surgery ; its impetus is felt throughout the field, and many a triumph has been scored under the moral stimulus of ovariectomy.

When the size and location of the ovaries are considered, and it is remembered that their existence is not necessary, either to the life or health of the female, the influence which they exert, especially when diseased, upon the general economy is remarkable. Acting, as they do, upon distant parts of the body, through the medium of the sympathetic nerves, there is not an organ or a function that are not at times rendered morbid. Even the mind at times seems to be under the direct control of these small organs. If, then, the evil influence of diseased ovaries may be so great, their removal, as a means of curing disease that can be reached in no other way, comes to be a matter of greatest interest.

In considering the conditions that justify the operation, I should place first atresia of the vagina or uterus, where the canal cannot be kept open, and where the ovulation was attended by

serious symptoms, such as excessive pain, and symptoms of shock, and hæmorrhage into the abdominal cavity.

It was upon a case of this kind that Dr. Battey performed the operation in 1878. The atresia was due to the extensive sloughing of the genital tract, consequent upon labor, the cicatricial contraction being so great that the canal could not be kept patent; or, in congenital absence of the vagina, when it is impracticable to form a canal, or where the new formed canal cannot be made permanent, the removal of the ovaries may be necessary in order to restore health, or even to save life.

Uterine hæmorrhages to a degree involving danger to life or serious impairment of health, and incurable by the administration of medicine, or by non-operative procedure, are undoubtedly cases for oöphorectomy where the cause exists outside of the cavity of the uterus. Among the causes may be mentioned fibroid tumors of the uterus, the existence of small cysts of the ovaries, disease of the fallopian tubes, such as dropsy or accumulations of pus in their cavities, and the existence of chronic inflammation of the ovaries and the pelvic peritoneum or pelvic areolar tissue.

The success of Lawson Tait in the treatment of these cases is certainly remarkable. Of his last twenty-five cases there has been but one death, twenty one were entirely cured, and three greatly improved. When these results are compared with other methods, such as hysterectomy, the use of electricity, the administration of ergot and bromide of potassium, and other means, it will be seen that no other method equals this in value. A peculiarity of Mr. Tait's method of operating is the removal with the ovaries of the fallopian tubes. He takes the ground that the monthly discharge of blood from the uterus is due, not to the influence of the ovaries, but to that of the fallopian tubes, and he bases his conclusions on the fact that in his cases where the ovaries alone were removed, the hæmorrhage from the uterus was not always controlled, but that when both the tubes and ovaries were removed, a cure followed. This is certainly a new departure from our previously accepted doctrines, and a further investigation by other observers will be required before Mr. Tait's views will be accepted.

A fact is adduced, and one that is well known to the profession, that ovulation is not necessarily attended by a discharge of blood from the uterus, for women frequently become pregnant while nursing, and before the reappearance of the menstruation after the delivery of their last child. Women have also been known to become pregnant before they have ever had a menstrual discharge.

Many other cases of the removal of the ovaries for the cure of metrorrhagia, due to the existence of fibroid tumors of the uterus, have been reported in the various medical journals during the past few years, and generally with good results, but none so favorably as the series reported by Mr. Tait.

Dr. T. Addis Emmet has recently visited Mr. Tait, in England, and he reports that from what he saw, he can speak favorably of Mr. Tait's work in this direction. The object of the operation in this class of cases is, that by the removal of the ovaries, we bring about the change of life, remove the influence of the ovaries and fallopian tubes on the nutrition of the uterus, lessen the blood supply to the parts and produce atrophy similar to that following the menopause. With the present light that we have on the subject, there can be no doubt that in properly-selected cases, the operation holds out a better prospect of cure than any other. The question of the removal of the uterine appendages for metrorrhagia due to chronic disease of the ovaries, or fallopian tubes, is still far from being settled, and it seems to me that it resolves itself first into the fact of our being able to diagnose, by means of an examination, whether there is sufficient disease of the appendages to warrant the belief that the fault lies with these organs. When the cysts in the ovaries are small, or the ovaries but little enlarged and not displaced, or when the fallopian tubes are not materially increased in size, many difficulties arise to prevent our gaining the desired knowledge. The abdominal walls may be rigid and unyielding, or thick and loaded with fat, or the pelvic structures may be more or less fixed and agglutinated by former inflammations, the distension of the abdomen by tympanites, or by ascitic fluid, all tend to perplex or hinder in the arrival at correct conclusions. In such an event, and we are unable to determine clearly the condition of the ovaries, if we

can discover no other cause, and the hæmorrhage is serious enough to imperil life, or render the patient an invalid, then the removal of the ovaries is justifiable if the loss of blood cannot be controlled by other means. Prolapsus of the ovary into Douglass' pouch, accompanied with enlargement, chronic inflammation and adhesion to the surrounding structures, is an affliction that is well nigh irremediable by any means except it be by its complete removal.

In a former paper read before this society I detailed the methods most likely to give relief in prolapse of the ovaries. If, however, we are unable to restore the patient to health by less severe means, and she was condemned to a life of invalidism by reason of her infirmity, the removal of the dislocated organ is justifiable.

In hernia of the ovary into or through the inguinal ring, when it is not reducible, and its abnormal position is attended by severe pain and swelling of the parts, and the heart becomes or is likely to become seriously impaired, the removal of the ovary is indicated.

All who have had much to do with the treatment of women have met with a considerable number of cases that have proved more than a match for their skill, and are classed under the general head of chronic pelvic inflammation. Commencing as a case of pelvic peritonitis or cellulitis, or pelvic hæmatocele, they end in partial recovery—perhaps in the formation of pelvic abscess. The recovery is never perfect, and from time to time, varying from weeks to months, there is a recurrence of the inflammation and pain until the health is destroyed, and the woman is left an invalid for the balance of her life. The treatment by general and local measures gives a modicum of relief, but a perfect cure is not arrived at; and the woman lives on from year to year a burden to herself and to all round her, with no hope of relief this side of the grave. In this class of cases Mr. Tait proposes the removal of the uterine appendages, in order to effect a cure, and he has now operated in thirty-five instances with but one death.

Regarding the secondary results, he says: "Precisely the same kind of argument applies to its secondary results, which in the hands of experienced operators are admittedly bad. For my

own results, so far I have abundant cause for satisfaction. Some of my cases yet are incompletely relieved, but by far the majority of them are absolutely cured."

A noticeable feature of Mr. Tait's cures, is the fact that in nearly every one the fallopian tubes were diseased; they were either dropsical, or contained muco-purulent matter or pus, and that, too, when the ovaries were not markedly diseased, except that they were cirrhotic, apparently from the effect of previous inflammation. This new departure in the management of these cases is both bold and novel, and if it proves, after a fair trial, to cure a considerable proportion of those cases that have heretofore been looked upon as incurable, then may we encourage our patients to take the risk of the operation with the hope of a cure as the result.

If there is any one principle in surgery more clearly settled than another, it is that diseased and incurable organs, the existence of which is seriously impairing the health, shall be removed by the knife, so, after all, it is not so much the propriety of this operation as a justifiable surgical procedure in the case last spoken of that calls for discussion, but the point to be settled if possible, is the conditions when it is the best thing to do.

Under the heading of neuralgia, there is a group of painful affections that have their site in and about the pelvic organs of women. Ovarian neuralgia, neuralgic dysmenorrhœa, coccygodynia, vaginismus, intercostal neuralgia, especially under the left breast, pain in the top of the head, and reflex symptoms, generally of a neuralgic type.

It has been proposed in severe cases of neuralgic or ovarian dysmenorrhœa, where the health is becoming seriously impaired, and the case is incurable by other means, to remove the ovaries as a last resort. I must confess that I would be loth to do this, unless the case was an exceptionally bad one, and there was some especial reason why the operation should be performed.

When we consider the effects upon the nutrition and the nervous system of women, of our mode of life, or in other words, of our American civilization, with their badly-balanced and over sensitive nervous organization, and with their predisposition to hysteria and neurotic affections, we must look to improvement of

the general health by improved methods of living, by constitutional treatment, by change of location and of surroundings for relief and cure, rather than to surgical procedures on particular organs. I should take the same view regarding oöphorectomy for nymphomania or vaginismus, exhaust other methods of cure first, only resorting to the operation in desperate cases.

Whether the operation will prove of value in cases where epileptic seizures occur habitually at the time of menstruation, is a question requiring farther experiment to determine, but where the attack is clearly dependent upon the nervous disturbance attending the monthly discharge of blood from the uterus, and is not relieved by other means, oöphorectomy is certainly worthy of trial.

Dr. Goodell and Dr. Pallen advise that the ovaries should be removed in all insane women. This is certainly taking very strong ground, and as yet is unwarranted, for we have not had a sufficient number of cases reported where a cure followed the operation to justify such statements.

However, I can understand that in cases of insanity, where an unbalanced mind is manifestly associated with, or caused by a morbid state of the ovaries, that their removal would be justifiable, and would perhaps be the only means left towards effecting a cure. On the other hand, Dr. T. G. Thomas reports three cases of insanity and mania following oöphorectomy, and Dr. Putzel, pathologist of the New York Insane Asylum, found no trace of disease of the ovaries in over one hundred post-mortem examinations made upon the bodies of women dying in that institution. The ovaries may be removed through the vagina by cutting open Douglass' pouch, passing a finger up into the abdominal cavity, drawing the ovary down through the aperture, ligating it, returning the stump, and leaving the incision to heal without sutures, the opening acting as a means of drainage. The objection to this method is, first the difficulty of reaching the ovaries, and next the uncertainty of removing every portion of the diseased gland, owing to adhesions to surrounding structures, consequent upon attacks of pelvic peritonitis or cellulitis. Experience has shown that it is of the first importance that every particle of the ovary be removed, if we wish to get the best results ;

for if a small portion remains, ovulation still goes on, and the object of the operation will be defeated. If the ovary is prolapsed into Douglass' pouch, and is not fixed by inflammation, and it is desired to remove it, the operation *per vaginam* is feasible, and not particularly difficult. In all other cases, the removal of the ovaries through an opening in the abdomen has decided advantages. The operation by opening the abdomen is precisely the same as in the operation for ovariectomy; an opening being made in the central line sufficiently large to admit three fingers, or the whole hand if needed, and the condition of the ovaries and fallopian tubes are ascertained. If the operation is performed for uterine hæmorrhage, both ovaries and fallopian tubes are removed; if for other reasons, only that part is removed which is diseased.

The operation is considered more difficult than ovariectomy ordinarily, mainly on account of the rigidity of the abdominal walls, they not having been distended and thinned as in the case of an ovarian tumor, and by reason of the ovaries being small, and sometimes buried in lymph. Hands, sponges, instruments, sutures, and dressings should be absolutely clean if we wish the best results. Listerism should be carried out to the fullest extent, with the exception of the spray, and the after-treatment conducted as after a case of ovariectomy. In his series of cases reported for the removal of the uterine appendages on account of uterine hæmorrhage, Mr. Tait incidentally mentions the fact of his drawing up the retroverted uterus and stitching it to the abdominal wound, and the cases recovered with the uterus retained in its normal position. This, although not mentioned as any special feature, is worthy of notice, as showing what is possible in this direction.

The mortality, so far as I have been able to gather statistics, varies greatly with different operators, and it is very noticeable that the greater the experience of the operator the less the mortality. Speaking of ovariectomy, Dr. Skene, of Brooklyn, a man of learning and skill, says: "This operation differs from all others that I know of, in the number and variety of complications which it affords. It is seldom that two cases exactly alike occur in the practice of any surgeon; hence it is not until a large number of

cases have been seen that the operator is prepared to meet all the conditions that may come before him. To the operator of limited practice, the operation in this respect often presents the characteristics of a new investigation."

Mr. Tait says, of his whole number of oöphorectomies, seventy-five in number, the operation being performed for various diseases, the mortality had been eight per cent.; for the last sixty-one cases there have been but three deaths, or a mortality of five per cent.; and the last thirty-five cases of chronic oörophoritis the mortality is but one, or less than three per cent. He says: "It is clearly, therefore, an operation which can be justified by its primary success, only in the hands of a surgeon who has large and constant practice in abdominal surgery, and when it is done by a large number of operators in twos and threes, it can only meet with speedy and well merited condemnation."

Dr. Battey's report at the Medical Congress in London, in 1881, gives the statistics at that time as follows: Of 90 cases of complete removal of the ovaries, 75 per cent. were cured, 17 per cent. were greatly benefited, and 8 per cent. not benefited. Of the incomplete operations, 17 in number, 18 per cent. were cured, 41 per cent. were greatly benefited, and 41 per cent. not benefited.

The mortality of these cases was, in the complete operations, 22 per cent., and in the incomplete operations, 9½ per cent., but it must be remembered that a considerable number of these operations were done before the days of antiseptics, and before abdominal surgery had been perfected as it now is.

It is true that young and inexperienced men do not hesitate to cut open the abdomen for the removal of ovarian tumors, who would hesitate before attempting to perform the operation of removing the lens of the eye for cataract, or performing iridectomy, and yet all must agree that the skill required, and the danger to life involved in the former, is many times greater than in the latter operation.

The secondary effects upon the woman, in case she recovers from the operation, do not differ materially from those incident upon the change of life. The voice, the figure, the disposition is the same. The only way in which the woman's sexual condition is altered is her inability to bear children; and as this abil-

ity is usually destroyed before the operation is undertaken, this argument has but little force.

It has been claimed that it is an operation that is likely to be abused or needlessly performed. This may be true, as it is too often true of many new procedures in surgery; but abuses correct themselves, and I doubt not that the operation is capable of accomplishing much good, and that it will ultimately be recognized as a legitimate procedure in properly selected cases.—*Western Lancet*.

THE TREATMENT OF SPINAL DISEASES. A Clinical Lecture delivered at the Jefferson Medical College, Sessions of 1882-83. By ROBERTS BARTHOLOW, M.D., LL.D., Professor of Materia Medica and General Therapeutics in the Jefferson Medical College, Philadelphia.

GENTLEMEN: No thoughtful student can have failed to observe the greater attention paid to the pathology and diagnosis of spinal diseases than to their therapy. Indeed, the treatment is usually dismissed in a few words, as an unsatisfactory subject. Notwithstanding I have, myself, as a teacher of therapeutics, given rather more than ordinary attention during my lectures here to this department of the subject, I must still admit that my efforts in this direction have not been as full as the importance of the subject demands. I have now to make an effort to supply this omission—to place before you the more recent results attained in the treatment of spinal affections. By thus taking a comprehensive view of the whole field, we may the better comprehend the relation of the several parts and arrive at conclusions more accurately than by the consideration of individual maladies only.

From the therapeutical point of view, these spinal diseases may be comprehended in three groups: Acute inflammatory, chronic inflammatory, and nutritional diseases. It is of no special importance to fix the precise seat of the inflammation, for the principles underlying the therapeutical management are the same. To

a just estimate of the curative effect of remedies in these inflammatory affections, a true conception of the spinal circulation is necessary. Look at this diagram. Observe the voluminous and tortuous veins of the spinal canal. To the nutritious arteries of the cord they bear the numerical proportion of four to one. In other words, if the capacity of the arterial supply be put at *one*, the venous capacity must be stated as *four*. It follows that the blood current sent into the spinal canal through the arteries must be slowed there to fill out the veins. This, you will explain, is an arrangement to facilitate the functional work of the spinal cord, under the various conditions interfering with the normal and equable blood-supply. Without stopping to consider the necessity, we are now concerned with the fact, simply. The blood-supply having this peculiar arrangement, do these anatomical conditions affect the question of remedies? I unhesitatingly answer this question in the affirmative.

One of the remedies most relied on to affect the intra-spinal circulation is ergot. I hold that its administration in acute spinal inflammation is improper, because of the peculiarity of its action. It induces an anæmia of the arterial distribution—an ischæmia, properly speaking—but the blood, thus driven from the arterial side, accumulates on the venous side; hence, it follows that while the arterial supply may be reduced, the veins of the spinal canal are distended unduly. The compression thus exerted on the cord has, as I conceive, a most hurtful influence on its nutrition, and hastens the progress of the changes inaugurated by the inflammation.

If ergot is inadmissible in acute inflammation of the intra-spinal organs, to what remedies shall we then resort? You may not be at all prepared for the statement I have to make, but, speaking from the standpoint of my personal observation, I have to say that aconite, digitalis, veratrum viride, opium, and bromide of potassium are the most useful remedies in the cases of acute spinal inflammation. Each, however, has its special range of utility. All agree in the power to limit the blood supply to the spinal canal, but in what degree, if at all, does each affect the intra-spinal venous circulation? Far more than ergot. If I may again refer to my own experience, I can recommend the use

of digitalis first, and, if this disagree with the stomach, aconite. You will find it most useful to begin with the infusion of digitalis, administering from a tea to a tablespoonful every four hours, until the conditions for which it is used cease, or the stomach fails to retain it. If irritability of the stomach is a bar to its internal use, it may be effectively employed topically, the leaves being steeped in hot water, placed in a porous bag, and applied to the spine or abdomen. This remedy, you will find, will do more to restore the normal balance of the intra-spinal circulation than any other now at our command.

Next to it in point of utility is the tincture of aconite root. This must be given until the characteristic tingling is produced, or the pulse-rate is lowered. Acting both on the skin and kidneys, it favors the excretion of the products of inflammatory waste. *Veratrum viride* is not as useful as aconite—its action little extending beyond the hydrostatic effects. Opium, especially morphia, hypodermatically, becomes indispensable when pain is a pronounced feature in all cases, and experience has shown its utility in meningeal inflammation. The bromides, especially bromide of potassium, are indicated when reflex, convulsive phenomena are present; such as muscular cramp, twitchings, etc., indicating irritation of the motor tract.

Are there any data by means of which we may fix the time for the administration of the arterial sedatives? As these remedies only affect the vessels primarily, and secondarily the structure of tissue, when shall they be discontinued? In respect to this point, there is always no little indecision; but a correct conclusion may be reached by a careful consideration of those symptoms, indicating the occurrence of exudations—symptoms whether of excitation or of depression of function. So long as the symptoms of excitation—hyperæsthesia and spasm—continue, there can be no doubt that those remedies will be useful which have to do with the blood supply. When exudations occur and pressure is thereby brought to bear on the intra-spinal organs, the symptoms of depression or of arrest of function come on—anæsthesia and paresis.

Arterial depressants can do no possible good; only injury, indeed, when the local status is no longer that of hyperæmia and

excited action ; when the process of effusion and exudation comes on, we have to deal with depression of function. Remedies having very different powers then come into use.

Merely fluid effusion into the spinal canal is more easily disposed of than a solid exudation. Usually, however, the products of inflammation include both fluid and solid exudations. Absorption of merely fluid exudation may be affected by a judicious combination of purgatives and diaphoretics, especially of Epsom salts and pilocarpine. The disposition of solid exudations is more difficult. Considerable experience with the use of ammonia and its salts, especially of the acetate and carbonate, has given me very positive confidence in the power of this remedy. The most convenient mode of administering it is to dissolve the carbonate in the official *liquor ammonii acetatis*, so that five grains of the former will be given in a tablespoonful of the latter. At or about the time when the symptoms of depression, due to the pouring out of an exudation, come on, the solution of ammonia should be administered. The important point is to so alkalinize the blood, that local thrombus and solid exudations may be reabsorbed. To accomplish this result, it is necessary to keep the blood well alkalized. Although this may fail, it is surely the most promising expedient in such cases, and experience has proved its utility.

If the physician is so fortunate as to see the case at the very moment of its inception, the best results are to be expected from the administration of a maximum dose of quinine and morphine—20 grains of the former and one-half grain of the latter ; but unfortunately, cases of acute spinal inflammation are not often seen at their beginning. The attempts to jugulate an inflammation can therefore be very rarely made with success. The cases of chronic inflammation are relatively more frequent. They succeed to the acute ; they may arise *de novo*. Hyperplasia of the neuroglia, granular degeneration of nerve fibers and cells, fatty and granular degeneration of the intima of the vessels, and crowding of the perivascular lymph spaces with leucocytes, are the most important initial changes, and these lead to various inflammatory and atrophic lesions. The various sclerosis belong to the group of chronic inflammatory affections—such as antero-lateral and posterior spinal sclerosis. The alterations extend

over many years, but they are, properly speaking, of the chronic inflammatory type. It must be obvious to you that some of the most important therapeutical questions are concerned in the management of these affections. The means employed are partly topical; partly systemic. A daily morning and evening hot douche to the spine, of fifteen minutes' duration. I have found it to be exceedingly effective.

In the absence of suitable appliances for the douche, a sponge dipped in hot water and passed over the spine rapidly for fifteen minutes at a time may be accepted as its equivalent. You may regard this as trivial, but I assure you the day of small things has not yet passed. The importance of physical impressions on the peripheral nerves is indeed very great. Strumpf, the well-known neurologist of Düsseldorf, has lately got remarkable curative results in posterior spinal sclerosis by cutaneous faradization, by excitation with the faradic brush of the skin of the back, especially of the spine and of the limbs. This method consists in passing the faradic brush for a half hour at a time thoroughly over the parts in which the lesion is known to exist, and over those parts in which symptoms are felt. You will probably feel inclined to ask, How can cutaneous faradization effect the cure of a disease which has hitherto resisted the most efficient treatment? It may be quite impossible to give an adequate explanation, but it is certain that peripheral irritation, if restrained within proper limits, has a remarkable curative effect on the condition of internal organs so situated as to be in anatomical relation to the site of irritation. Thus, Strumpf has found that cutaneous faradization of one side will cause an increase of the temperature in the corresponding position on the other side. Erb strongly advocates the use of the rubbing wet-pack in chronic myelitis. He does not advise cold or hot water, but merely tepid. The patient, enveloped in a sheet wrung out in tepid water, is gently rubbed with the sheet *in situ*. To the same class of actions belongs massage, but this alone has, in my experience, been disappointing. If the application can be confined to the gentlest titillation of the cutaneous nerves, good may come of it; but in the spinal trouble I am referring to, all violent rubbing and kneading apparently does mischief. Granville's *percuteur*, lightly used,

has a good effect also. It is a matter within the range of everybody's experience that the most painful inflamed surface will be anæsthetized by the gentlest friction if persistently employed. It is probable, therefore, that the good effects of peripheral applications in spinal affections are largely due to the communication of very gentle impulses originated at the periphery, in the sensory terminals.

Besides these topical applications which act through the sensory nerves, there is a local remedy which acts directly on the cord—galvanism. Since it has been shown that the galvanic current penetrates through the bony envelope of the cord, the only question is as to the mode of applying the electrodes. Strangely enough, opinions are yet divided as to the effect of direct or inverse currents. My own conviction is, that the view of of Onimus and Legros is substantially correct. According to them, the descending galvanic current increases the activity of the circulation in the part acted on, by stimulating the vermicular contractions of the organic muscular fiber of the vessels. The result of such increased vermicular motion, must necessarily be a more active circulation, and more rapid interchanges between the blood and the tissues. A descending galvanic current must therefore promote the nutrition of parts, if we admit the correctness of the views enunciated by Onimus and Legros. It is therefore, in chronic spinal affections that we have a right to expect the best results from galvanic treatment. As the resistance offered by the bones of the spinal column is so great, the electro-motive force of the galvanic battery must be sufficient to overcome it.

To treat such cases efficiently, not only must the number of elements be large, but the resistance within the battery must be nearly that of the part of the body acted upon, to avoid the shock and burning pain. The electrodes should be of large, well-moistened sponges—one placed on the nape of the neck, the other on the sacrum. As the strength of current required for these spinal applications is so great, unless the sponges are large and well-moistened, very severe burning will be produced. The number of elements required will be from thirty to sixty, or the strength in *milleampères*, from ten to twenty. There should be a daily *séance* of ten to fifteen minutes' duration, and the treat-

ment should be continued over many months to obtain permanent results. It is the neglect of these measures, inattention to details, and impatience over delays that have led to so much disappointment in the application of galvanism. I am, from personal observation, fully able to confirm the high estimate placed by Erb on the method of treating chronic spinal affections. Neither galvanism nor any other remedy can restore lost parts; hence, when the anatomical elements are destroyed, function must ever after be imperfectly performed.

I must now call your attention to the most useful internal remedies in chronic cases of spinal inflammation. The best results have been obtained from the so-called metallic tonics, notably nitrate of silver, but the danger of staining and of causing gastric ulceration are serious objections to the persistent administration of silver salts. In the scleroses, and in connective tissue hyperplasia of organs in general, I have seen excellent results from the internal use of the chloride of gold and sodium. This may be given in a granule containing one-twentieth of a grain three times a day. The corrosive chloride of mercury has similar effects, but it does not seem to me to be equal in curative power to the gold chloride.

There are so many ways, owing to the almost universal use in domestic life of the noxious metals, for slow metallic poisoning to occur, that the affections thus produced are probably much more numerous than we are now aware of. A typical example of locomotor ataxia came into my hands, in the person of a water gilder. Syphilis is now held to be the chief pathogenetic factor in this disease, but there are two modes in which this relation exists—direct and indirect. Syphiloma occurs when the first cutaneous lesions appear, but especially during the time of the older constitutional symptoms. The first are comparatively mild, the second consist of gummata, etc. These lesions are direct—that is, they belong to the ordinary course of development—of evolution of the disease. The indirect arise because of the cachexia—the lowered vital resistance of the organism, produced by the long-continued operation of the syphilitic disease and of the remedies used to remove it. In the former, or the direct syphilitic lesions, the specific remedies are curative; in the latter or indirect, they

rarely do good; in fact, their administration is adding insult to injury, in many instances.

I have long entertained the notion that the utility—the remarkable utility—of iodide of potassium in some cases is due to one of two conditions: to an overlooked syphilitic infection; to metallic poisoning. This is so certainly a fact, that in doubtful cases I advise the use of full doses of iodide of potassium as a preliminary to further treatment. In all distinctly specific cases there can be no possible doubt in regard to the efficacy of anti-syphilitic treatment. Now let me tell you a fact not generally known, or, if known, not sufficiently appreciated: Mercury, in syphiloma of the nervous system, tertiary in type, is, in some instances, quickly curative when the iodides fail utterly. *When there is reason to suspect mineral poisoning, and in all doubtful cases, the iodides should be administered in full doses, either tentatively or as the major treatment.*

The third group, from the therapeutical point of view, consists of these spinal disorders not due to a recognizable inflammatory process, but to some change in the function of nutrition. In this position may be placed the changes that are senile, whether of time or prematurely. The most important therapeutical point in these cases is to supply the material in which the tissues are deficient. A combination of the lime salts—the phosphate especially—with a fat, cod-liver oil, is most useful in these cases, but good results can be reached only by persistent use of the means of treatment. In these cases of senile degeneration, much good is accomplished by the use of the salts of ammonia to prevent the formation of thromboses, or to effect their solution if formed. Strychnia and quinine, to stimulate the organic functions, render an important service also.

The subcutaneous use of strychnia is often remarkably effective in all of the chronic spinal affections characterized by loss of muscular power. It is, of course, inadmissible in those stages of these maladies having an active state of the local circulation—in all acute cases, in chronic cases with acute exacerbations. The quantity to use in this way ranges from 1-60 to 1-30 grain daily, once, or on alternate days. The hypodermatic injection of strychnia may, indeed, serve as a means of distinguishing the

character of the spinal trouble. It increases the paralytic symptoms when an inflammatory condition is present, and improves the functional and chronic diseases.

Galvanism, applied as already pointed out, to stimulate the spinal circulation, and faradism at the periphery, contribute to the nutrition of the cord by promoting the activity of the circulation in general. By a proper combination of these expedients, we can often effect very decided improvement.

As you will observe, I have not alluded to the treatment of the large group of so-called functional disorders of the spinal cord. The consideration of this is a sufficiently fruitful topic of itself for a lecture—for many lectures, indeed—and hence I must postpone it to a more convenient season.—*Weekly Medical News.*

CLINICAL LECTURE ON THE DISEASES OF WOMEN. Delivered at the College of Physicians and Surgeons, New York. By PROF. T. GAILLARD THOMAS.

INFANTILE LEUCORRHOEA.

GENTLEMEN: The little girl, nine years old, whom I first bring before you, is suffering from a very profuse leucorrhœa, which, her mother informs me, she has been unable to cure by any of the remedies which she has employed, and which has now lasted for two months. I, of course, made a vaginal examination, and, on separating the labia, I found that the whole vulva was about the color of red flannel, and bathed with a copious leucorrhœal discharge. The meatus urinarius was also seen to be in the same condition, and urethritis has, no doubt, been set up by the spreading of the irritation. If it had been necessary, I could have introduced a small glass speculum into the vagina; but this was not required to make a diagnosis, as I saw exactly what was the matter without resorting to this.

Not infrequently mothers will bring their little girls to you in this condition, and they will sometimes be in a state of great agitation, because they are afraid the trouble has been the result of injury done the children. There is ordinarily no reason

whatever to suspect anything of the kind, and you can at once quiet the anxious mother's mind. The affection is a perfectly simple one, and is perfectly curable also. What is it, then? It is generally known as infantile leucorrhœa; but infantile vaginitis would be a better term for it.

Now as to its causes. One of the most frequent of these is neglect of hygienic precautions. There is generally no intentional neglect on the part of the mother or nurse; but, on account of the undeveloped condition of the part, an accumulation of hardened secretion sometimes collects in the same way as that which not infrequently gives rise to balanitis in the male child. Another common cause is the depreciated condition of the child's system, such as that due to spanæmia, in which all the mucous membranes are apt to become more or less affected. Thus, there is often gastric and intestinal, as well as nasal catarrh. A third cause that may be mentioned is reflex influence from the rectum. The cause of the irritation in the rectum is usually ascarides, and an afflux of blood to the part is caused by the itching and irritation.

In some instances, the ascarides, by getting into the vagina itself, are the direct cause of the trouble. The prognosis of this affection is, that it can be cured at once if it is properly treated.

In the treatment, the first thing to do is to see if there are any worms present, and if so (or there is any reason to suspect that such is the case), use an injection of warm salt water, as this form of ascaris (*the ascaris vermicularis*), as well as others, is unfavorably affected by salt. The next thing to do is to get the child's general system in the best condition possible by appropriate food, iron, vegetable tonics, and the hypophosphites. It is better to depend on nourishing diet, however, than on medicinal agents. If after the worms have been gotten rid of the vaginal irritation and discharge should continue, or if no worms should be found to be present, local treatment will be required. The vagina should be thoroughly washed out by means of a syringe provided with a small nozzle, which ought to be well oiled before being introduced. In order that the canal may be perfectly cleansed, the child should be placed upon the back. In some cases the mere removal of the accumulated secretion, which

is a constant source of irritation, is all that is necessary ; but if the trouble has gone on for some time, this may not be sufficient. Something further is then needed, and one of the best applications to use is the old-fashioned black wash (calomel and lime-water) in the strength of one ounce to the pint of water. Before using this (which should be done twice a day), an injection of simple warm water should be made. I have never yet seen a case of infantile leucorrhœa that could not be cured by such treatment as this ; so that there is no necessity of resorting to astringents and nitrate of silver, which may perhaps do harm. If it is adopted here, I have no doubt that in less than two weeks this child will be entirely well.

But there is one mistake which is apt to be made by the physician in these cases, on account of which a much longer time may be required for a case than is at all necessary, and that is, the failure on his part to show the mother or nurse how to introduce the nozzle of the syringe properly. Mothers, unless they are especially instructed in regard to this point, never carry the nozzle more than an eighth of an inch up into the vagina, and as it is above this that the degenerating pus is found, there will be no improvement, simply because the injections fail to reach the real source of trouble. It is not enough even to show the mother how to use the syringe, but you should also watch her do it, and see that the upper part of the vagina is reached. In a child of this age, the rectal tube of a Davidson syringe should be employed.

RECURRING ATTACKS OF PELVIC PERITONITIS IN CONNECTION
WITH OVARITIS AND SALPINGITIS.

Our next patient is Mrs. Mary H., a native of the United States, and 33 years of age, who has been married for ten years. She has had two children, and the youngest is now 7 years old. She says she got quite well after the birth of her last child ; but has been complaining for more than six years. She nursed the child for about seven months when her menses came on, and since that time she has never been well. This is not an uncommon history ; the trouble not commencing at child-birth, but with the resumption of ovulation. Since she has stopped nurs-

ing the child, she says she has had constant pain in the lower part of the abdomen, and twice she has been very much bloated. The first time that this bloating occurred, she did not suffer much pain with it; but the second time it was accompanied with very severe pain, and she was confined to bed for a time. The second attack lasted for about two months. In regard to her menstrual periods, she says she does not have much more pain than usual at that time, but that she has considerable pain for three or four days before the flow, and that it is somewhat relieved by the latter. She sometimes has backache in addition to the constant abdominal pain, but is always able to attend to her household duties.

When a vaginal examination was made in this case, it was found that the uterus was in its normal position, and, on mapping it out, by means of conjoined manipulation, that there was more or less fixation of the organ. On either side of the uterus was discovered a mass which was tender under pressure, and which extended outwards. The fixation of the uterus indicates with certainty that the patient has had pelvic peritonitis; and there can be little doubt that the two attacks of which she has spoken were of this nature. The bloating which she mentioned, and which she thought was dropsy, was in all probability the tympanites which so frequently accompanies pelvic peritonitis.

What is the diagnosis here? All the gentlemen who have examined the case, agree with me in believing that both the fallopian tubes, as well as both the ovaries, are enlarged since these parts can be mapped out with unusual ease in this instance. It is altogether probable, therefore, that after she ceased nursing her child, she became affected with chronic ovaritis and chronic salpingitis. Mr. Lawson Tait, the distinguished English surgeon, has recently pointed out the fact that repeated attacks of pelvic peritonitis occur as a result of this condition of the ovaries and tubes. Up to the time that Mr. Tait's paper appeared in the *British Medical Journal* last summer, I had never had my attention called to this point, and consequently my experience has not yet been very extensive in regard to it; but I have already seen enough to convince me that he is quite right in at-

tributing these recurring attacks of pelvic peritonitis to the escape of irritating fluid from the inflamed tubes into the peritoneum. In the present instance, the first attack of peritonitis was evidently very light; but the second one seems to have been considerably more severe. Although the tubal enlargements can apparently be made out with unusual clearness in this case, the diagnosis, you must understand, is not a positive one.

I have not operated in five cases where the same diagnosis was made, but they were all cases in which the patient's sufferings had become intolerable. The fifth operation was performed only four days ago. The patient was completely bed-ridden, and had become so addicted to the use of opium that she required no less than ten grains of sulphate of morphia by hypodermic injection each day. Sometimes she has taken as much as sixteen grains in the twenty-four hours. To-day, for the first time, her allowance of the drug has been diminished. Her ovaries and fallopian tubes, I may say in passing, were found to be in typical condition described by Tait.

In the case now before you the ovaries and tubes are, no doubt, in very much the same state; and yet this is a case in which I certainly would not recommend the operation for their removal. The reason is, that this woman does not suffer to such an extent, in my opinion, as to justify a resort to so radical a procedure. I cannot impress upon you too strongly the fact that the dangers of this operation are very great: and the great fault I have to find with Mr. Tait, is that he makes too light of them altogether. I cannot believe that the high standard of success which he has thus far maintained, will be kept up in the future. In the five cases which I have now operated upon myself, there is not one patient to whom death would not have been a welcome relief from her sufferings. A woman who is in such a deplorable condition as all these even before this operation, is worse than a leper, and everybody who has anything to do with her case soon gets sick of it. Such patients almost invariably become opium-eaters. The present case is fortunately not of this desperate character. The dividing line must be drawn between suitable and unsuitable cases for operation; and nothing would induce me to operate here, as long as she remains no worse than she is now. She

does not suffer enough, and her life is by no means miserable enough, to render it proper to subject her to the dangers of such an operation. Saturday, however, I saw a case in which I would not hesitate an instant to operate, because the poor woman had had so many attacks of inflammation, and was so utterly wretched in every way.

Here, instead of an operation, I would recommend such measures as the repeated painting of the roof of the vagina with compound tincture of iodine, the external application of blisters or tincture of iodine, and the continued use of galvanism and the hot-water douche.

SUBINVOLUTION AND ANTEFLEXION IN CONNECTION WITH LACERATION OF THE CERVIX UTERI.

Our last patient to-day is Mrs. Mary P——, 24 years of age, and a native of the United States. She has had one child and three miscarriages, the last of which occurred one year ago. She says she has been complaining for the last three or four months, and has suffered from severe pain in the back and lower part of the abdomen. At her monthly periods, which last for a week, she flows very profusely. She also suffers a great deal of pain at the time of menstruation, and would go to bed if it were possible for her to do so. Between her periods she has a profuse leucorrhœa. All the miscarriages, it seems, have occurred since the birth of her living child, and in answer to closer questioning she tells me that the menorrhagia has really continued ever since her baby was born, but has increased of late. The pains also she has had for a long time, but it is only within the last three or four months that they have become so severe. Finally, she says that there has been no change in her condition of life which would account for the aggravation of symptoms of which she has spoken.

When I made a physical examination in this case, the moment the finger was passed up into the vagina, it was found that the uterus was tilted forward to a marked extent, and that the cervix was badly lacerated on both sides. The uterus was then found to be not simply anteverted, but in a state of anteflexion, and was also both large and tender. The ovaries were, apparently, altogether normal. Such a condition having been found, the most

of the patient's symptoms are already accounted for. When the child was born the cervix uteri was lacerated, and, no doubt, in consequence of this, involution was interfered with. The menorrhagia depends on the abnormal condition of the lining mucous membrane of the uterus, which was in all probability affected by subinvolution. The diagnosis of the case is, therefore, *first*, laceration of the cervix; *second*, subinvolution of the uterus; *third*, antelexion of the uterus, in consequence of the subinvolution; and, *fourth*, fungoid degeneration of the endometrium. Some European writers call this latter condition *endo-metritis polyposa*, but the name is not a correct one.

In order to be properly treated, this patient should be admitted to the Woman's Hospital. She should be kept quiet for a week, have her bowels regulated, and be treated with hot vaginal injections. A Sims' speculum should then be introduced, and by means of a copper wire curette, such as I now show you, the whole endometrium should be scraped, in order to remove all the little polypoid excrescences with which it is covered. After that she should remain in bed for three or four days, the hot vaginal injections being kept up in the meanwhile, and then an operation for the repair of the lacerated cervix should be performed. The sutures could be removed in about ten days, and the next thing would be to restore the uterus to its proper position, in which it would probably remain without the use of a pessary. The patient could then be discharged, and I believe that she would soon be entirely well.

You observe that the woman is very pale and weak from loss of blood; but as long as this condition of menorrhagia continues, it is adding fuel to the flames to give her iron or quinia. Iron, I have found, is the very worst thing that you can give such a patient, and this is a point which I trust you will not lose sight of. As to the leucorrhœa, that will no doubt disappear as soon as her system, freed from the constant drain from which it now suffers, has regained its normal strength and tone.—*Medical and Surgical Reporter.*

CASE OF INTERSTITIAL TUBO-GESTATION.

Dr. Henry Habgood describes the case of a married woman, aged 35, who died with all the symptoms of internal hæmorrhage, in the eleventh week of pregnancy. "At the necropsy, there were about five pints of clotted blood in the pelvic and abdominal cavities. On turning this out, the source of the hæmorrhage proved to be a sac, formed by the uterine portion of the left Fallopian tube and the wall of the uterus, which had grown outwardly to about the size of a walnut, and then ruptured anteriorly. Chorion villi were distinctly visible in the sac. The opening of the tube into the sac had become obliterated. There was evidence of a previous partial rupture, in the shape of a small hæmatocele, on the posterior aspect of the sac. The fœtus had escaped into the abdominal cavity, and was unfortunately lost. The left ovary was closely attached to the left side of the uterus by old bands of lymph, and contained several cysts. The right ovary was normal, and contained a corpus luteum. The uterus was enlarged, and its lining membrane was red and thickened, forming a distinct decidua, that could be easily detached. The bladder was healthy, but contained no urine. The abdominal organs were healthy, but very anæmic.

With regard to the cause of the arrest of the ovum in that particular spot, I may remark that nothing existed in the Fallopian tube or uterus, in the shape of polypus or fibroid, to cause obstruction, but that there were plenty of adhesions on the left side, matting the uterus, Fallopian tube and ovary together, altering their relative positions, and, possibly, causing obstruction. Yet the presence of a corpus luteum in the right ovary, coupled with the cystic condition of the left, would point to the theory of transmigration of the ovum as being the most probable explanation of the phenomenon."—*British Medical Journal*.

CEREBRAL DYSPEPSIA. By JOHN S. MAIN, M.D.

The author strongly insists on the purely cerebral origin of many forms of dyspepsia, where the patient is neither over-indulgent, nor intemperate, nor addicted to hurrying over meals, nor accustomed to eat coarse or unwholesome food. The cerebral

form of dyspepsia is well seen, in many cases, where a healthy man, with a good appetite suddenly receives bad news when sitting down to a meal. "But, perhaps, of all conditions acting on the brain in this manner, and through the brain on the stomach, no one thing is more injurious, or more jarring to the cerebral elements, than uncertainty, and the worry caused by the same, more particularly in preternaturally, irritable subjects. In fact, it is in connection with this same worry that the form of dyspepsia I have at present under consideration most frequently occurs. The mind, in such cases, preys upon itself; the cerebral elements seem to get jarred and out of gear; and with this condition the stomach sympathizes. But in addition to worry the habitual practice of calling into action the 'reserve fund' of the cerebrum, as already mentioned, will bring about the same consequences—namely, cerebral fatigue and exhaustion, indicated chiefly by preternatural irritability; this condition, sooner or later, telling upon the digestive organs. Having said this, it is almost unnecessary to add, that such cases are most commonly met with amongst those who are engaged in the hottest part of the 'battle of life,' or 'struggle for existence;' and, again, amongst these, chiefly those whose business or profession leads to much anxiety, uncertainty, or overstretching of the mental powers. In over-aspiring, over-ambitious natures 'hope deferred' may bring about the same results; as, according to the biblical expression 'it maketh the heart sick.' My attention was drawn to several cases of dyspepsia, connected with one or other these conditions, some time ago; and what made me more strong in my view of these cases being cerebral, and not stomachic at all in their origin, was their obstinacy under all forms of natural treatment. Latterly, I have found that the only treatment capable of doing these cases any permanent good, is a change, in the wide sense of the term—a relaxation from business or study; and as regards medicine, not such as are meant to act on the stomach directly, but those meant to act on the cerebrum. Amongst these, I have found the most useful to be the bromide of ammonium, or bromide of potassium—preferably the former—given in sufficient dose a bed-time, to secure a good night's sleep, this being often very indifferent, and so tending to complicate the case; and,

combined with this, to be taken three or four times during the day, such medicines as are known to have a building up effect on the nervous system. Among these, the most useful are phosphorus, or the hypophosphites, and cod-liver oil. Arsensic and quinine are often also useful, and a generous diet is always indicated. Unless the stomach has passed into a state of disease (which it may do, if overtasked when in this weakened state), any of these medicines are generally well borne. It will be well to bear in mind, however, that if the mucous membrane of the stomach be in a state of irritation, quinine, arsenic, phosphorus, the hypophosphites, and sometimes even cod-oil, are generally inadmissible."—*British Medical Journal*.

THE SALICYLATES AND HÆMORRHAGES IN ENTERIC FEVER.—Dr. James Fergusson, of Perth, writes: "At the time when salicylic acid and its compounds are receiving so much attention, may the following facts be regarded as at least worthy of statement? Last year, while resident in the infirmary here, I had an opportunity of testing the efficacy of certain drugs as antipyretics in enteric fever. These agents were used successively, each over a group of cases, and included the salicylate of soda. The latter had not been long in use when an increased frequency of hæmorrhages from the bowel raised the question, Could the salicylate be favoring the production of that complication of the malady? Whether it were or not, the suspicion aroused, dictated the withdrawal of the salt from use in cases of typhoid. Shortly afterward, I noticed that a foreign observer had reported the salicylate of bismuth, and, I think, also salicylate acid (though of the latter I cannot be certain, as I am not able now to find the report in question), to cause intestinal and nasal hæmorrhages. The subject would not have been revived by me at present, but for the recent experience of my successor in the resident's office at the above-mentioned institution, D. H. McLean Wilson, who joins me in placing the facts before the public. Dr. Wilson, in having recourse to the soda-salt in typhoid, found the same striking frequency of hæmorrhage to follow closely. His employment of the agent differed from mine, in that he administered the

small doses of ten to fifteen grains frequently over the twenty-four hours, while I gave half-drachm or drachm doses at longer intervals apart. In the other respect, however, our experiences have been so similar as to warrant the fact being brought under notice, so that the important practical question involved, may, if possible, be decided by the evidence of a number of observers."—*British Medical Journal*.

TO HASTEN THE ACTION OF QUININE.

Dr. Starhe, in *Berliner Klin. Wochenschrift* advises that before swallowing powder or pills of quinine, a weak tartaric acid lemonade be taken. This procedure not only greatly accelerates the solution and absorption of quinine, rendering its physiological action much more prompt, but also obviates that unpleasant gastric irritation so common after the administration of large doses of this drug.—*Medical and Surgical Reporter*.

FATAL IMPACTION OF THE BOWELS FROM CHEESE. By CHARLES W. MILLER, M. D., Peabody, Kansas.

One evening about dusk, in the latter part of February, 1879, I was hastily summoned from my office by a Russian farmer living fifteen miles northwest of this city, in the interest of a sick neighbor of his by the name of Abraham Base, also a Russian, whom he represented, as well as I could determine, as suffering greatly from flatulent colic. Supposing, from what I could understand from the Russian's description of the case, that it was nothing more than an ordinary case of colic, induced probably by over eating or by the use of very improper food, I merely supplied myself with a good supply of ipecacuanha and morphia, and started on my mission in company with my Russian friend on a journey of fifteen miles of lonely prairie, during one of the coldest nights of that intensely cold winter. Arriving at one of those peculiar Russian houses, consisting of mud and straw—the mud in the form of Russian brick, from which the house is constructed, and the straw for the thatched roof overhead—I found myself among a group of solemn, religious people, who were anxiously awaiting my arrival. My patient was lying upon his

back in bed, with his legs drawn up, his knees almost touching his abdomen, in agony indescribable, the sweat pouring down over his face, and with all of his undergarments as wet as though he had just been lifted out of a hot bath. He was a tall, heavy man, muscularly built and powerfully constituted, somewhere in the neighborhood of thirty years of age; married, with wife and family of small children surrounding him. Seeing at a glance that I had no ordinary case to deal with, and that the diagnosis I had anticipated was very probably a visionary one after all, I commenced to probe the family for a history of the case in the best German I could command, while seemingly examining his tongue and pulse. The results were that he had been confined to the house with abdominal pains three or four days previously, the pains increasing in severity each successive day; that they came about in the first instance from a visit to Newton, a town distant about fourteen miles, which he had made some days previously in a large, heavy, jolting farm-wagon, eating about a pound and a half of store cheese on his homeward journey; the jolting, bumping movement of the wagon packing it down for him *solidly* about as fast as it reached the small intestines; this destination being reached also somewhat faster than ordinary by the rough manner of the journey. He was now suffering from peritonitis, with all of its concomitant symptoms; vomiting of fecal matters; dry, parched condition of the tongue; extremely foul breath; stercoraceous vomiting; partial coma; extremely swift and feeble pulse; deeply injected eyes; flatulent condition of lower bowels; the impaction being marked and fairly outlined against the abdomen. There had been no stools for twenty-four hours previously; nothing passing but flatus, which was frequent and involuntary. No retention whatever, by mouth or rectum, of anything solid or liquid, in quantities however small. Seeing, therefore, at once the hopeless situation of my patient as well as myself, I concluded to send for my partner for consultation, in the meantime employing message gently and persistently over the seat of impaction, in the desperate hope of moving the mass.

We labored earnestly until dawn by the side of the doomed Russian, doing all in our power to move the mass, but nothing

came but flatus. An operation would have been useless at the advanced stage in which the case was first presented to us, as well as firmly objected to by a people believing religiously in the will of God in all such matters. Singular to relate, the man lived nearly forty-eight hours afterwards, dying only when mortification had long existed to a great extent over the seat of impaction. —*Southern Clinic.*

ON THE THERAPEUTIC VALUE OF SULPHUROUS ACID IN SCARLATINA MALIGNA.

Dr. Keith Norman Macdonald, after denying the prevalent opinion, that no reliance can be placed on any drug in cases of scarlatina, does not hesitate in affirming that, when properly applied, both locally and internally, sulphurous acid is by far the most efficacious remedy we possess. He continues, "I have had several opportunities of testing its efficacy in some of the worst cases I have ever seen, during the epidemic which has been rife in this town (Cupar Fife) for the last two months, and I am bound to say that, of all remedial measures in this disease, it is, in my opinion, the most reliable. My treatment is as follows: The moment the throat begins to become affected, I administer to a child, say of about six years of age, ten minims of the sulphurous acid, with a small quantity of glycerine in water, every two hours, and I direct the sulphurous acid spray to be applied every three hours to the fauces for a few minutes at a time, by using the pure acid, in severe cases, or equal parts of the acid and water, according to the severity of the case. Sulphur should also be burned in the sick chamber half a dozen times a day, by placing flour of sulphur upon a red hot cinder, and diffusing the sulphurous acid vapor through the room, until the atmosphere begins to become unpleasant to breathe.

"In the worst cases, where medicine cannot be swallowed, this and the spray must be entirely relied upon; and the dark shades which collect upon the teeth and lips should be frequently laved with a solution of the liquor potass. permanganatis of the strength of about one drachm to six ounces of water, some of which should be swallowed if possible.

"In cases presenting a diphtheritic character, the tincture of perchloride of iron should be administered in rather large doses in a separate mixture with chlorate of potash, and equal parts of the same with glycerine should be applied locally, with a camel's hair brush several times in the day; but, as in the majority of cases among children, it is next to impossible to use a local application more than once, the spray and permanganate solution will then prove of great service.

"As to other remedies recommended by various authors, ammonia is nasty, and cannot be taken well by children; carbolic acid has the same fault, and cannot be applied properly. Gargles are also useless in children, because they seldom reach the diseased surfaces, and warm baths and wet sheet packing are dangerous, because they are never carried out properly in private practice. The hypodermic injection of pilocarpine is a remedy that may give good results hereafter, but I have had no experience of its use."—*British Medical Journal*.

BLOOD GLOBULES.

In man the average volume of a red globule is said to be Omm. c. 000,000,072. According to Vieuvordt and Welcker, a cubic millimeter of blood contains about 5,000,000 red globules. The blood of women contains less. In ten liters of blood the number of globules would be about 50,000 milliards; and the superficies of these globules has been said to be 2,816 square meters. More or less, there is one white globule to 350 or 500 red globules. A cubic millimeter of blood would count about 8,000.—*Wurtz, Chimie Biologique*.

THE New York Policlinic has had one hundred and twelve physicians studying in the various classes since November 7th, last, and two thousand five hundred patients have been treated in the Policlinic building within this period.—*Medical News*.

Items.

The Twenty-fourth Annual Commencement Exercises of Chicago Medical College were held at the Grand Opera House Tuesday afternoon, March 27, 1883.

The exercises included the Secretary's report of the year's work, the announcement of prizes, the conferring of degrees and charge to the class by Rev. Joseph Cummings, President of the University, and a valedictory address for the class by Dr. Geo. W. Post. The programme was pleasantly interspersed with music, and was attentively appreciated by a large audience.

Ten prizes for excellence in several different senior branches of instruction were awarded to Doctors N. S. Davis, Jr., E. G. Exler, J. E. Henderson, G. W. Post, J. T. McAnally, F. P. Peck, Chas. Davison, H. E. Burbank, James Mills and W. H. Graves.

Four prizes for excellence in anatomy and anatomical work were awarded, respectively, to Messrs. Wm. Elliot, Theo. H. Swayne, H. S. Frothingham and S. P. Black.

Dr. N. S. Davis, Jr., received the Alumni Prize for the best average scholarship in all studies, and Mr. A. C. Helm received the Edwards' Prize for best average scholarship in Junior and Middle studies. The Bullock and Grunow Prize for best examination in microscopy was awarded Dr. E. G. Exler.

The customary banquet to the graduating class and alumni was given at the Leland Hotel in the evening. It was well attended and highly enjoyed by all present.

DEATH OF THE SURGEON GENERAL.—Order From the General of the Army on the death of Dr. Joseph K. Barnes.

The following order was issued from the head-quarters of the army, Adjutant General's office, Washington, April 5 :

Brevet Major General Joseph K. Barnes, Brigadier General of

the U. S. Army (retired), late Surgeon General of the Army, died at his residence in Washington at 2 o'clock this morning. He entered the service as Assistant Surgeon, June 15, 1840; was promoted Surgeon, with the rank of Major, on August 29, 1856; Medical Inspector, with the rank of Lieutenant Colonel, February 9, 1863; Medical Inspector General, with the rank of Colonel, August 10, 1863; and Surgeon General with the rank of Brigadier General, on August 24, 1864. He was retired from active service by the operation of the law of June 30, 1882. He served with distinction in the Florida war against the Seminole Indians, in the war with Mexico, and in the war with the States in rebellion. For faithful, meritorious and distinguished services in this last war, the brevets of Brigadier General and Major General of the United States Army were conferred upon him.

He was eminent, skillful and successful in his profession as surgeon and physician, and distinguished for great administrative ability, as the head of the Medical Department. He inaugurated the medical history of the war. He founded the Medical Museum and brought the Medical Department to the highest state efficiency. During the troublous times of the late war he earned the unbounded confidence of the Secretary of War, Mr. Stanton, and held it unbroken to the last. At the time of the assassination of President Lincoln and the attempted assassination of Secretary Seward, he attended the death-bed of the one and ministered with untiring energy and skill to the successful restoration of the other. So during the long illness of President Garfield, he was one of the distinguished surgeons of the land, who for days and nights served with devoted duty in the sick chamber of the dying President. During these long protracted hours of anxiety and care his own health gave way, and from that moment to the time of his death he was an invalid. His career was one of honor to himself, and of great service to his country.

By command of General Sherman.

R. C. DRUM, Adjutant General.

PROFESSOR HUXLEY has been appointed the Rede lecturer at the University of Cambridge for the ensuing year.—*Medical and Surgical Reporter*.

HOW THEY MAKE "COD-OIL" AT SWAMPSCOTT.

The Edinburg Medical Journal, February, 1883, thus describes one of the important though unsavory interests of a neighboring watering place. Swampscott is a little town upon the coast of Massachusetts, not far from Lynn, situated near the head of a bay between Nahant and Salem, off this ancient haunt of fishermen, at a distance of about nine miles.

It is a place called the "Rocks" where in winter, the codfish come in shoals to spawn, and the striped bass sport themselves in summer. During the winter months, be the weather what it may, unless the wind be rising for a gale, a little after midnight men may be seen going about the village, stopping here and there at houses, rousing the fishermen, who, by and by gather in groups about the shore, each with his "dory," that well-known model of Yankee ingenuity which at the great Berlin fishery exhibition excited so much attention. The dories and their owners are soon aboard the various schooners in waiting, and by five A. M., the fleet is at the "rocks;" so, when the day-light is sufficient, the dories anchor about their respective larger craft, each boat with its single occupant, who is soon hard at work robbing the sea of its life. About three P. M. the signal is given from the schooner to come aboard; the dories hasten to their floating castles, with pitchforks the various "catches" are soon thrown aboard, and sail is made for home. During the passage the fish are gutted, the entrails cast into the sea, and the livers, some of them large enough to fill a quart mug, are put into baskets. When the shore is close at hand, the fish are again put into the dories; but the roughness of the sea is such that these boats, when loaded, cannot land, and into the icy sea-water the horses are driven until the carts reach such a place that the codfish can be put into them, when off they go, to plod the night through for the early Boston market. The livers are immediately sorted over and the gall bladders carefully removed. The great luscious flabby masses are thrown into a large oak tub; with this are connected steam pipes. When the receptacle is full and closed, low pressure steam is turned on, and for about two hours and a half cooking goes on. Then the plugs are taken out at the bottom, and the hot oil streams into buckets. It is now placed in butts

in the cooling-room, and allowed to stay there until it freezes solid. So it is kept until opportunity offers, when it is put into canvas bags holding about four gallons each. These bags are then placed regularly upon a heavy oak table provided with outer grooves for conducting liquid, until twelve gallons are in a row. On this is laid a slab, then canvas bags, and so layer after layer, until about eighty gallons are piled up. A ton of pig iron is then placed upon the top slab of oak and the oil begins to flow out. In about twelve hours dripping ceases, and the apparatus is taken apart. Inside the bags is found a yellowish butter-like mass as hard as tallow, which is nearly pure stearin, with liver debris and fibers. This goes to the soap makers while the oil finds its way to the Massachusetts general hospital and other places where the superiority of the finest American oil over the Norwegian is recognized.—*Boston Medical and Surgical Journal*.

COOK COUNTY HOSPITAL.

The following gentlemen began their service as attending physicians April 1st:

Surgeons—Drs. Hutchinson and Whitney.

Physicians—Drs. McWilliams and Buchan.

Obstetrician and Gynæcologist—Dr. DeLaskie Miller.

Ophthalmologist and Aurist—Dr. Jacobson.

Doctors Shaver and Wood began their duties as Internes. Doctors Fordyce and Hammon finished their terms as House Physician and Surgeon respectively; Dr. Fordyce commences practice at Hot Springs, Arkansas; Dr. Hammon remains in Chicago.

Hospital Clinics are as follows:

Monday, 2 p. m.—Pathology, Dr. Fenger.

Tuesday, 1:30 p. m.—Medicine, Dr. McWilliams; 2:30 p. m., Surgery, Dr. Whitney.

Friday 2:30 p. m.—Surgery, Dr. Hutchinson.

The new pavilions adjoining the present buildings are roofed, and expected to be ready for occupancy in May. The plan of their construction is essentially that of those now occupied.

Cases of pneumonia and erysipelas have been abundant during the spring; there has been no hospital epidemic.

The examination for graduation of the Training School for Nurses will be held April 19th. It will be written, and not a public occasion.

The list of examiners is not yet complete, but invitations to examine have been sent to men of acknowledged ability. The demand for nurses exceeds the supply, and but few will be available for duty.

ILLINOIS STATE MEDICAL SOCIETY.

The Illinois State Medical Society will meet in Peoria, Ill., on the third Tuesday in May, 1883, at ten A. M. The reunion usually continues for three days. The following is a

LIST OF THE STANDING COMMITTEES.

Practice of Medicine:—N. S. Davis, of Chicago; B. M. Griffith, of Springfield; J. F. Todd, Chicago.

Surgery:—J. E. Owens, Chicago; J. T. Stewart, Peoria; M. Reece, Abington.

Obstetrics:—E. L. Herriot, Jacksonville; G. W. Jones, Danville; E. A. Ingersoll.

Gynæcology:—David Prince, Jacksonville; C. Chenowith, Decatur; E. S. Norred, Lincoln.

Ophthalmology and Otology:—S. J. Jones, Chicago; J. P. Johnson, Peoria; J. G. McKinney, Barry.

Drugs and Medicines:—T. J. Pitner, Jacksonville; Herbert Judd, Galesburg; P. H. Garriston, Macomb.

Necrology:—E. Ingals, Chicago; William Hill, Bloomington.

SPECIAL COMMITTEES.

Simple Renal Catarrh:—I. N. Danforth, Chicago; Washington West, Bellville.

On the Practicability and Desirability of Separating the Work of Teaching in Medicine and Licensing to Practice:—D. S. Booth, Sparta; E. P. Cook, Mendota; M. A. McClellan, Knoxville.

The Diagnostic Peculiarities of Malignant Growths:—Christian Fenger, Chicago.

Analysis of a Certain Class of Remedies Concerning which Physicians are not Positive as to their Therapeutic Value:—W. L. Ransom, Roscoe.

COMMITTEE OF ARRANGEMENTS.

J. Murphy, Chairman; A. S. Adams, J. H. Reeder, J. P. Johnson, I. T. Stewart, T. M. McIlvain, *ex officio*.